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AMERICAN ARTISAN and Hardware Record

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Utica Heater Company's Remarkable Smokeless Heater

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Burns Soft Coal Without Smoke

SUPER-SMOKELESS Furnaces are already popular in the soft coal sections. Their smokeless, sootless operation and noticeable fuel economy appeals to all sensible people. SUPER-SMOKELESS Furnaces offer heating men an opportunity to sell furnaces that have unusual features and real merit.

SUPER-SMOKELESS Furnaces make practical use of the scientific Bunsen Burner Principle. Sufficient oxygen, properly heated, is mixed with the combustible gases, thus assuring successful consumption of the heavy smoke and soot of soft coal.

All Sizes of SUPERIOR Pipe and NEW IDEA Pipeless Furnaces with the SUPER-SMOKELESS Feature.

All sizes of the Utica Heater Company's line of SUPERIOR Pipe and NEW IDEA Pipeless Furnaces are available with the SUPER-SMOKELESS device. These are the quickest erected warm air heaters made; they include many important improvements in design and construction. With the SUPER-SMOKELESS feature the SUPERIOR and NEW IDEA now represent an exceptionally desirable line for progressive heating men in every territory. Investigate this proposition.

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UTICA, New York

218-220 West Kinzie Street CHICAGO, ILL.



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To relieve this condition we have placed an ingeniously designed hot blast diffuser inside the fire door of the **FRONT-RANK**. Being next to the fire it becomes very hot, and as the cold air from the basement is drawn through the draft wheel it is compressed between the door and the diffuser which heats it by radiation.



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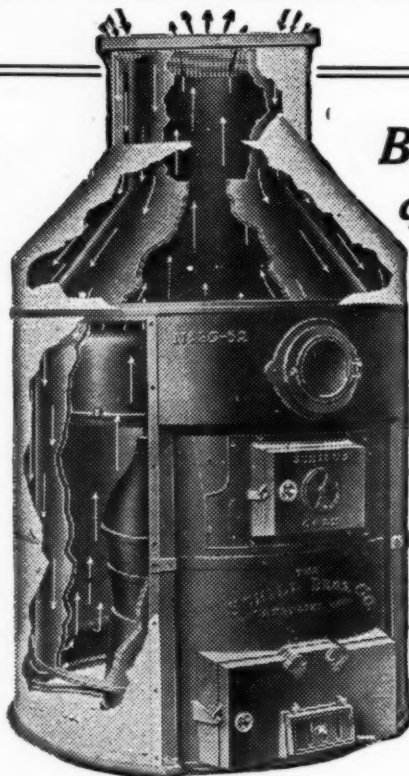
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The heater is one of our best all cast high grade furnaces.

Deep cup-jointed throughout and it contains the best of furnace construction features.



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CHICAGO, MARCH 10, 1923.

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THE LABORER IS WORTHY OF HIS HIRE.

Many years ago a great teacher spoke these words:

"The Laborer Is Worthy of His Hire."

And ever since, the "laborer" has fought to make his remuneration larger and larger—and for a large part of the time without much regard to the quantity or quality of the work performed by him.

This editorial is not directed against Union Labor.

On the contrary, for neither Industry nor Labor would probably occupy the high positions they do if it hadn't been for the wise leadership in days gone by that Union Labor has enjoyed.

But with the intensified competition, which has come to be one of the great factors of our commercial and industrial life, there has also come a tendency on the part of too many to regard the value of their technical knowledge and of their personal service in too small a light. For example, we sell a man a warm air heating plant—

And what do too many of us do?

We figure the cost of the furnace, the fittings and the labor, add what we consider a fair overhead and to the whole a small percentage for what we are pleased to call profit.

And we shave that profit—and possibly also the "overhead"—until there is barely enough left to give us a bare margin over and above our actual outlay, and sometimes not even that; in order to get a job rather than letting the other fellow have it.

In other words, we place absolutely no

value upon our experience, out of which the customer gains a benefit; nor upon our technical knowledge which safeguards the customers; nor upon the service which we render—simply figuring a small percentage of the cost of doing a job as our "profit."

And what is the result?

Instead of the house owner seeking out the installer with the reputation for doing excellent work, he hunts for the man who will do the installation for the least money—usually with the result that he gets a poorly constructed furnace, poorly installed, the repairs and changes on which will in a few years make the installation a more costly one than if a real furnace had been properly installed in the first place—if, indeed, the plant is ever made to operate satisfactorily.

If the laborer is worthy of his hire—and we all agree that he is—he must insist that he receive proper pay for his work, for his experience, for his knowledge, for his time, for his service—and the only way he can hope to make this possible is to emphasize to his prospective customer that he is rendering the specific service of furnishing the customer with an efficient heating plant, and that he is not in the business of selling so many pounds of castings and sheet metal, and that it is to the customer's advantage to do business with a man who looks upon himself and his work with some degree of dignity.

And the only person who can bring about this change is the contractor or installer himself. No one can do that job for him.

Random Notes and Sketches.

By Sidney Arnold

I have my own opinion of people who go down to Florida, Cuba, Bahama, or those other places where they make cigars or sell the stuff that the late "Honorable" Mr. Volstead says we mustn't drink—and then write back to us poor devils who have to stay here and put up with lime chlorided water for our drinks and snow slush on the streets, telling how nice the weather is and how pretty the girls, etc., but the Editor won't let me put my feelings in print—so I am just going to tell you to take a whack at George Harms for me next time you see him (he's bigger than I am). He tells me that Florida does not look like a good field for either Weir or Warm Home furnaces, and that the only thing they might use Handy pipes for would be to pipe some of that good old—you know—over from Cuba.

* * *

Charlie Bartholomew, who is the head of the newly organized Engineering Department of the Fox Furnace Company, told me this story:

It was one of those melodramas given by home talent and in the guardhouse scene a real, honest-to-goodness buck private was supposed to be drilled by a bullet while sawing through the bars in an endeavor to gain his liberty. The gun unfortunately missed fire, but the buck, true to form, dropped as if dead.

Something had to be done and that instantly, but the sergeant of the guard was equal to the emergency.

"Thunder and lightning!" he belated. "He's swallowed the hack-saw."

* * *

A few weeks ago it was once more my pleasure to stop at the Hollenden Hotel in Cleveland. It so happened that the Ohio Hardware Association held its annual convention and had its headquar-

ters at the Hollenden at the same time, but in spite of the fact that this popular hotel was crowded to overflowing the service was as prompt, efficient, painstaking and pleasant as under ordinary circumstances.

Mine host Thompson is a hotel man par excellence. You meet him in the lobby, chat a little while with him and go about your business with a feeling that he is really interested in having your stay at the Hollenden a pleasant one.

And with all the unostentatious service you receive, it is only fair to say that your expenses are considerably lower than in hotels which have far less claim to the title of "high class."

* * *

Sam H. Keller, the Berloy man, was "one of those present" at the Bay City Sheet Metal Convention and as usual he had a number of good stories on hand:

Scene in court room. Prospective juror is being examined.

"Have you ever served on a jury in a criminal case?" demanded the district attorney.

"No, sir," replied the talesman under examination.

"But my notes show that you served on the jury when Peter Szowkowski was tried for murder."

"Yes, sir—but we acquitted him."

* * *

George E. Barker, of the Cooperative Foundry Company, was telling about the peculiar ways of the colored folks and cited the following as an example:

Mr. Mokeby (applying alone): "Ah wants to get a marriage license."

Clerk: "Where's the bride-elect?"

Mr. Mokeby: "What yo-all mean elect? Dey wasn't no 'lection a-tall. De lady done app'inted herself to de office at mah own pussonal request."

George Thesmacher, who runs a little tinshop in Cleveland that does a yearly business of several million dollars a year, has among his employes a man by the name of Hicks.

Mrs. Hicks is so painfully neat that she makes life miserable for her family. One of her rules is that all members of the household must remove their shoes before entering the house.

"Bill," she remonstrated one day with her husband, "I found a grease spot on one of the dining-room chairs, and I think it came off those pants you wear in the shop."

A brief silence was followed by a volcanic eruption: "Well, Jane, for the last fifteen years I have taken off my shoes on entering this house, but I'll be hanged if I'll go further."

* * *

The Love We Passed Out.

Duty is routine dreary and cold,
Under its sway we grow gray and old,

Passive and narrow and hard as a stone,
Cold and superior, shunned and alone.

Love in our work is the thing that counts

And produces the beauty that duty surmounts

Love is the force to which the world bends

Love lives forever and never ends.

Love is a leaven let loose in our work,

A desire to please, no desire to shirk,

A thought for a brother, his wrong to condone,

A word to a mourner in her home left alone.

Love lives forever, the thing that we keep;

When sordid things fail, then shall we reap

The full measure of happiness o'er flowing sublime,

In the dutyless love we shared in our time.

CARLOTTA BONHEUR STEARNS.

Facts of Warm Air Heating and Ventilating.

Reports of Progress in Warm Air Heater Research Work.
Ventilating Factories, Theatres and Other Buildings.

Error in Address of Mr. Snow on Fan for Furnace Heating

The Bay City stenographer who transcribed the address of Harry M. Snow, Salesmanager of the Furnace Fan Corporation, Dowagiac, Michigan, on "What a Fan Will Do in Completing the Service of the Warm Air Furnace in Heating the Home," made an error when she made it appear that Mr.

Snow claimed that "you can pass from 15 to 18 *thousand* cubic feet per minute through the jacket of the furnace."

What Mr. Snow did say was that 15 to 18 *hundred* cubic feet could be passed through the furnace jacket.

The statement appeared in the twentieth to twenty-first lines of the second column of page 24 of our March third issue.

stone, metal, water, etc., and these materials imparting the heat to air.

In the summer forenoons, when the rays of the sun mix with the air, they produce a *direct* heat. And in the summer afternoons, when the rays of the hot sun have penetrated the stone, the pavement, the crust of the earth, the buildings, etc., the heat becomes *immense*, because now the air is being heated by both the rays and the heated up matter. At this time of the day the heat is both *direct* and *indirect*.

And when the sun has set and its ways no longer strike our portion of the globe, the heat we experience in the summer evenings is *indirect*; is stored up and contained in the matter among which we dwell, and this heated-up matter it is which makes us swelter in the cities while outside the city, where there is less heated-up matter and less heat stored, it is much cooler.

The camp fire, the fireplace and many of the old-time gas and electric heaters were *direct* heaters. They warmed the air as long as they were burning, and no longer.

The newer types of gas and electric heaters are being provided with metal and other heat-receiving and storing materials, and they retain and radiate moderate heat even after the flame or the current have ceased to function. These newer types are a *combination* of the direct and the indirect heat.

A distinctive *indirect* heater is the stove and the furnace. A bulky, heavy stove will heat hours after the fire went out in it. Still more so the furnace. The fire in it is made to travel through *radiators* weighing as much and more than the other parts of the furnace combined. While there is fire in the furnace, its heat penetrates and is retained by the radiator and, the radiator it is which exhales heat long after the fire went out.

Zideck Says That Installation Is Biggest Factor in Determining Efficiency of Furnace.

*He Maintains That a Good Installer Can Make a
Cheap Furnace Give Satisfaction, While the Best Fur-
nace Can Be So Installed as to Be Complete Failure.*

Written Especially for AMERICAN ARTISAN AND HARDWARE RECORD by
E. E. Zideck, Instructor in Charge of Heating and Sheet Metal
Work, Lincoln Institute, New York City.

WHILE it is necessary to artificially heat our houses to make them comfortably warm for us to live in, the problem of heating them *adequately* will continue important.

The term "adequate" applied to heating implies many things. Foremost of all, it means *clean, sanitary* heat. It means heat without the dust and smoke of the stove or the disarranged furnace. It means heat without the cold floors, the drafts, and the back-chills inherent the older systems of heating.

It means *uniform* heat throughout the house, uniformly maintained throughout the cold season.

And last but not least it means heat produced *quickly*, when wanted, and flowing uninterruptedly day and night, the heating apparatus requiring the least attention and left safely to itself at times, and not troubling and calling for repairs every time the cold wave hits town.

The term "adequate," applied to heating, also means the full amount of heat out of the amount of fuel fed into the apparatus. With coal prices steadily going up, the cost of maintaining heat in the house is becoming the *determining* factor with the average householder, and not infrequently during the past few years of coal scarcity and high fuel prices did many of them manifest it by using stoves and cheaper means of heating, while their costly heating plants were allowed to stand idle.

A heating plant which simply *devours* fuel—no matter how clean and convenient otherwise it is—finds little favor with the man who needs his money for other things besides footing the bills for coal.

* * *

All heating is done by *warming up the air*. This is done *directly*, by the heat of the fire mixing with the air, or, it is done *indirectly*, by the heat of the fire penetrating

Steel furnaces have their fire-places lined with fire brick which retain heat and radiate heat, same as the radiator in cast furnaces does.

In European country districts people build their heating stoves entirely of stone; of a kind of fire bricks which, once they are heated up, commence to give a moderate warmth and continue at it for days, requiring but little fuel added at intervals to keep them from cooling down.

These solid brick stoves, however, it takes considerable time to heat up. They are ideal heaters for the very cold seasons which, in those parts, is not subject to sudden changes. Freezing weather sets in before Christmas to stay steady till about the end of March. And while it lasts, it pays to feed the stove without once letting the massive brick structure get cold.

Our own climate is different. One day it freezes hard, and the other day it is so warm no one needs the heat which such a brick stove would radiate and continue to radiate, whether we want it or not.

The changeable weather to which the greater part of the United States is subjected during the winter season calls for *quick* heat one morning, *plenty* of heat during the one night, and possibly for just a *flare-up* of fire to take out the chill the morning after.

The *conserved* heat at such a time is just as much of a nuisance as is the *waiting* for the apparatus getting heated up at another.

By far the greater portion of troubles people complain of in connection with *steam and hot water* systems of heating is due to this changeable weather of ours.

The steam, the hot water and the vapor systems of heating are *indirect* heaters. The indirectness is *multiplied* in them. First of all, the fire burning under the boiler must heat up the metal of the boiler itself. Then the metal transmits the heat to water. Then the heated-up fluid must heat up the pipes leading to the radiators. Then the radiators commence getting warm. And only

when the radiators have absorbed heat, the real *heating of the air* contained in the rooms commences.

It takes *time* to get the fire burning. It takes more time to heat the metal of the boiler. Still more time to make the water hot; then the pipes, and then the radiators.

It takes quite an amount of fuel to heat up all the metal of the boiler to boil water and make it rise through the slowly warming-up pipes and into the cold radiators. And it takes another amount of fuel, and lasts another while before the radiators warm up enough to impart their heat to the air.

These systems are in imitation of the old European brick stove. It

In this series of articles Mr. Zideck will discuss the ordinary and unusual troubles that occur in connection with the operation of warm air furnaces, and will give practical suggestions for improving the service.

Readers are invited to write either to Mr. Zideck, or to AMERICAN ARTISAN on any subject brought up by Mr. Zideck in this series, and solutions will be furnished whenever possible.

takes long to heat them up, but once it is done, *the heat lasts*. And like the brick stove, they must be fed at intervals, maintaining fire under the boiler day and night, irrespective of whether heat is wanted or not.

That is why, on comparatively warm days, the big buildings heated by these systems feel sickly hot, people wondering why coal is being wasted when it is scarce and costs so much.

The truth about it is that it can not be helped. It takes too long a time to heat the system up to heating capacity, and if the fire in the boiler were allowed to go out, people would freeze to death when the weather changed before the cooled off system could be heated up anew. The big buildings, then, employing men to tend to it, must maintain fire under the boiler all the time. It is

costly and fuel wasting in a way, but they have the heat ready when the cold sets in.

For the small householder, however, any one of these systems is less desirable. With him fuel counts, and he can not have a special man tending to the fire. And here is where the *troubles* come in. It is a warm day and rooms are hot. The fire is allowed to go out. And suddenly the weather changes, cold sets in, pipes freeze and burst, and it takes hours to get the monster, cold as ice, fired up and carry heat into the rooms.

It is the *cold air* contained in the rooms which makes them *cold*. And the problem with all heating systems is to *warm up* that air to make occupants feel *warm*.

Of all known heating systems the properly constructed and correctly installed *furnace* alone does the right thing to that air.

It takes volume after volume of the *cold air* and carries it down into the cellar, where it is heated, and whence it is returned, *warm*, into the rooms.

All other heating systems, the stove, the gas and electric heaters, the steam and hot water boiler, do the warming-up of air *in the rooms*. The heat they radiate simply mixes with the air. The heat-permeated air rises to the ceiling. The cold air, coming in through the walls, by the doors and windows, being heavy, settles on the floors, and it takes *prolonged* heating to impart heat enough to the rooms to cause the warm air to descend to the floors. In rooms heated by these systems there are, at any time, different strata of air-temperature. At the ceiling and away from the outside walls, doors and windows, the temperature might be above 90°. The *lower* we go measuring the temperature, the *less* warmth will there be. With 90° at the ceiling, we might find only 30° at the floor and near doors and windows. This is so, because the air in the rooms heated by these systems is almost *stationary*, only slightly moved by the radiating heat, but otherwise governed by *gravity*.

The furnace system is *different*. It *moves* the air. It *sucks* the cold air in. It *blows* warm air. It causes the air in the rooms to *circulate* in and out of the furnace, and this brings about a disturbance, a movement in the air, that is overcoming the pure gravity properties of the colder and warmer air, and makes them *mix*.

A properly constructed and correctly installed furnace, then, sucking the cold air from the floors and discharging warm air, in streams, to penetrate the colder air-strata in the rooms, does away with the difference in temperature above referred to, and causes the whole volume of air in a room to be *warmed simultaneously*, creating an almost even temperature throughout.

The properly constructed and correctly installed furnace, fire burning in it, carries the cold air from the rooms into the drum surrounding the firing apparatus, and heats it there, discharging it, warm, back into the rooms. Its size and capacity is determined by the volume of air it is to heat. It costs *less* than either steam or water systems. It

can be fired to heating capacity with less fuel in much less time. On warm days the fire can be left to go out in it. There is nothing in it that could freeze and burst and need repairs. If it gets cold towards evening or from a sudden change in weather, the furnace will be heating the rooms promptly after the fire is started in it anew. On chilly autumn days and in the spring, when prolonged heating is not necessary, the furnace will take off the chill with the least amount of fuel, many times only paper and trash fed into it.

In addition, the properly constructed and correctly installed furnace is the *only* heating system which discharges *humidified* air. Moist air is necessary for health and comfort. It does not crack furniture as the *dry* air does. And the furnace provides this *moist heat* as it is required.

All in all, the system of taking the cold air from the rooms, warming it up in the cellar and bringing it back, warm and moist, to the rooms where it is wanted, is the *ideal heating plant*.

you must provide the cold air return by cutting off each of the doors leading from the dining room to living room, so as to give one inch clearance between door and threshold.

In my estimation there are very few houses but what can be heated much more economically by a pipeless furnace, with far less coal consumed in the house, than with a pipe system, steam or water, with far less room used in basement, with no pipes, boxes and boots, etc., to be maintained. They are by far the most modern and up-to-date heating system on the market to-day.

It has been my experience in selling and installing some three thousand jobs that the architect and contractor are like unto an old politician or professor; they never change till forced to.

There are thousands of home owners that know far more than the builder does, as he is only interested in low costs, and not in permanent satisfaction for ten or twenty years.

I have lived in this locality for twenty-six years, and have three thousand pipeless furnaces installed. The complaints have never reached three per cent and this year I have not had a single complaint. I ask any other installer of any system to duplicate this record.

While in the office of one of our large installers, in one hour he answered sixteen complaint calls.

Some of these assertions look out of proportion to the unbeliever, but you can say to your readers that I will back each assertion with the proven facts or affidavits.

I enjoy reading your valuable paper and no issue passes unread. I am always immensely interested in the pipeless furnace arguments. It shows installers are thinking, and when men think, good will follow.

So far as I know, I have the first pipeless in Cook County, and I have never used five tons of soft coal in our seven-room house; and we keep the house not only warm, but *Hot*.

Sincerely yours,

A. R. HARRIS.

—, Chicago, February 27, 1923.

Here Is Harris' Plan for Installing Pipeless Furnace in Charles Wilson's House.

Chicago Pipeless Enthusiast Says It Is Easy to Make Satisfactory Installation in Such a House.

IN our February third issue Charles Wilson, Monmouth, Illinois, presented a problem pertaining to pipeless furnaces. A solution for this problem was furnished by F. G. Sedgwick, of the Waterman-Waterbury Company, and was published on page 20 of our March third issue.

The following letter from A. R. Harris, Chicago, contains another suggestion for the same problem:

TO AMERICAN ARTISAN:

After looking over the sketch on page seventeen of your February third issue, drawn by Charles Wilson, Monmouth, Illinois, I should like to have this chance to sell a pipeless.

I would set the furnace to the

north of the basement steps, as shown in the accompanying cut. The register to set in the living room and about one foot from wall. There is to be a heat conveyor run from the living room through the 8x8 bedroom to the dining room, to be about one foot deep and three feet wide, tight against the ceiling and side wall of bedroom. This is to be made preferably of plaster board and to be absolutely air tight in bedroom.

If the owner should insist on a transom, place it in the living room side, to be hung from top and to swing out into the living room, forming a reflector toward dining room. However, this is not necessary to heat the dining room. Then

Shadow Box Display Shows Fox Furnace to Good Advantage at Exhibit.

One of the furnace displays at the recent exhibit held in connection with the annual convention of the Ohio Hardware Association in the Cleveland Auditorium, which drew real attention, was that of the

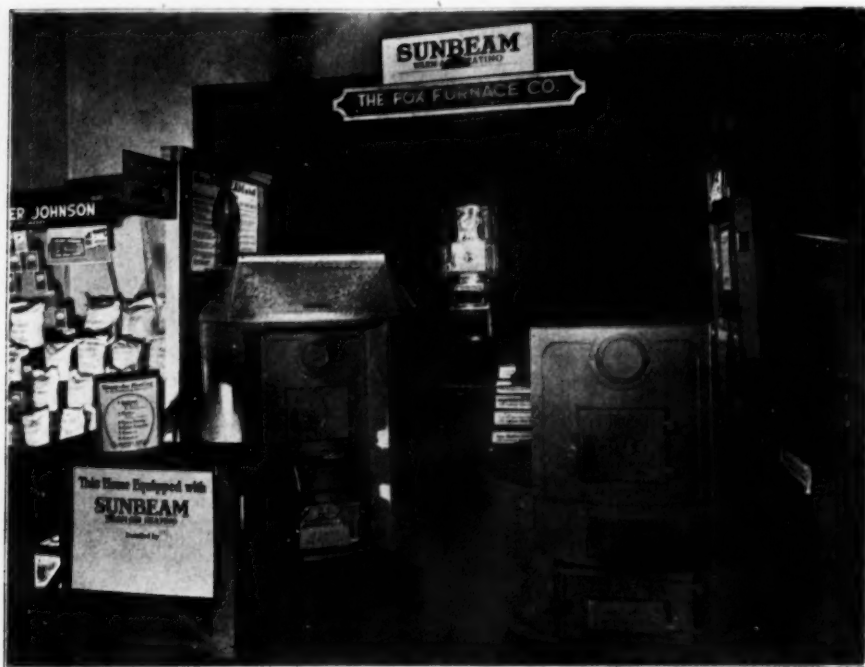
For several days the weather had been bitterly cold. During a part of the time the thermometer had registered zero or below. The wind had been blowing and the ground was covered with snow and ice. One night I went into the auditorium of the Cornell school. The air in this room seemed a little too warm. Aside from the heat, it had a pecu-

such a night an audience, sitting quietly in a hall in which the thermometer registers 64, complain of the cold sometimes to the point of mutiny. He took me to the boiler room and showed me how it was done. This is the trick: The air is taken from the roof of the building and drawn through conduits to the heating chamber in the basement. Into this chamber he has run a one inch steam pipe. After this pipe enters the hot air chamber, it is perforated, the small openings for the escape of steam being scattered from one end to the other and all around the circumference of the pipe-in-the-chamber. As heat is supplied the air in this chamber, the valve is turned and steam is fed it in proper proportions. The fact that the air is well supplied with moisture made a room temperature of 64 appear a little warm. In fact, a temperature of 60 would have been more agreeable. Furthermore, the high moisture content of the air in the room made it more wholesome for the occupants and less destructive to the furniture.

The speakers, performer, and players did not complain of drowsiness. They got the point quickly, which means that the air was "easy on" the speaker as well as "easy on" the furniture. I asked the engineer if he had ever seen any danger from explosion of the boilers due to the abstraction of steam. He said there had been none.

The engineer could have done his work better, made more people comfortable, and saved more coal, had he been equipped with a hygrometer, and thus been able to measure the moisture of the air instead of setting the valve by rule of thumb.

Iron and steel exports from the United States in September were 5,000 tons less than the month before, or as 140,455 gross tons compares with 145,640 tons. This was equivalent to a drop of $3\frac{1}{2}\%$ from August, and the figures were smaller than any other month since February. It was the fourth successive monthly reduction.



Attractive Display by Fox Furnace Company at Exhibit of Ohio Hardware Association in Cleveland.

Fox Furnace Company, and incidentally the illustration herewith, which is a reproduction of this display, furnishes a good idea for the local installer for his window display.

The "bright-spot" in the center is a full-sized Sunbeam Fox furnace, nickel plated all over, and it certainly stood out, set off as it was against the dead black background which was draped in a "shadow box" effect.

The show card fastened to the rail is one of the many selling helps furnished by the Fox Furnace Company to their dealers.

Blustery and Cold Outside, Temperature Inside 64, Room Feels Warm.

Dr. W. A. Evans, former Health Commissioner of Chicago, writes as follows:

liar "feel." The sensation experienced was somewhat like that which comes from going into a greenhouse. However, the air was not as moist as that of a greenhouse.

There were thermometers exposed on the walls of this auditorium. They were placed about five feet from the floor, one on the north wall, the other on the south wall. The thermometers registered 64. My guess, before seeing the thermometers, was that the temperature was 74. People who sat in the gallery of the hall judged the temperature to be higher than 74.

I noticed that the windows were frosted. This was noticeable before the crowd had been long enough in the room to fill the air with moisture from expired air.

I sought out the school engineer and asked his explanation of the feeling of heat with a temperature of 64 on a cold, windy night. On

The Open Forum Asks Fifteen Questions; Have You Answers to Any of Them?

Furnace Installers and Other Sheet Metal Contractors Are Invited to Take Part in This Discussion.

HERE is a list of questions which were placed in the hands of the sheet metal contractors who attended the recent state convention at Bay City, Michigan.

This list contains several good suggestions for subjects for the meetings of the various Locals, and the list is published for this purpose as well as for the purpose of having our subscribers write to us stating their experiences and opinions, together with reasons for such opinions.

Open discussions, free from ulterior motives or animosities, always result in benefits to those who take part.

So send us your letters on any one of the questions in the following:

Question Box.

1. Who is the best advertised retail furnace dealer in the state?
2. Can the average furnace dealer compete with the direct installer?
3. Will the dealer have to finance his own monthly payment plan?
4. Is it a safe practice to install single pipe stacks wrapped with asbestos paper? If so, how many thicknesses should be used? Are they as efficient as double stacks?
5. Would you use base or above base registers for second floor?
6. Can a furnace business be operated successfully in connection with a sheet metal shop?
7. Should the manufacturers of furnaces ask the retail dealer to assume all responsibility for the payment of paper on time sales?
8. What is the average cost of doing business for a shop doing \$20,000.00 per year on furnace and gutter work? What per cent of sales is spent for advertising?
9. Do you know of a lower compensation rate than \$1.96 per hundred dollars?

10. How long would it take to lay one square of 40-pound tin roofing on flat porch?

11. To what extent is it legal for the members of a local association to agree upon prices?

12. Will we be able to get enough galvanized sheets this year?

13. Will there be as much work as there is talked about this year?

14. How is the small town sheet metal dealer going to hold his help when the cities are paying higher wages than he can afford to pay?

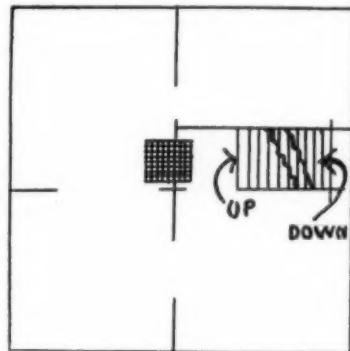
15. Should the wages of tanners be increased for this coming year?

Suggests Improvements in Solution of Turton Problem.

TO AMERICAN ARTISAN:

I have been very much interested in the discussion of pipeless furnaces running in AMERICAN ARTISAN during the past few weeks.

As my father, for whom I work, is as enthusiastically hostile to them



as Mr. Turton is partial, I have had no experience and know nothing about the methods generally employed.

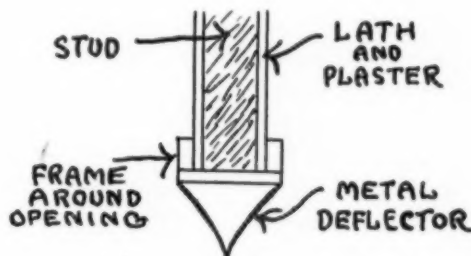
In his first article Mr. Turton refers to the "definitely fixed principles of heating." To put them briefly I should say that they are as follows:

1. Heated air rises.
2. Cold air descends.
3. Air must enter a furnace before it can come out.

4. There must be some kind of a connection between the furnace and the room to be heated.

All of these principles or requirements apply equally to pipe and pipeless furnaces; the only argument being in regard to the method of carrying out the fourth, whether by pipes or by openings between rooms.

A great deal depends on the customer's taste and experience. One who has never had a furnace, or one who has had an out-of-date pipe furnace, short of cold air, will usually be pleased with a good pipeless; but the man who has had experience with a good pipe furnace is likely to object to some of the conditions imposed by the pipeless, such as openings between rooms. I have no doubt but the average house could be heated comfortably with a pipeless, but it involves conditions which I would not want in my residence. For instance, I like to sleep with a window wide open, even in zero weather. In order to warm this room in the morning it would be necessary to open the door to let the heat in from the hall, and I rather object to being on exhibition while in bed or dressing. The other alter-



DETAIL OF OPENING

native is to use grills in the walls or floors, which raises the cost of the plant, reduces the privacy and does not help to decorate the house.

The only pipeless furnace on which I ever worked was one which I made into a pipe job. As I remember it, they complained of the drafts on the floor. (The taste of the customer.) While I believe that such drafts can be reduced by installing a furnace large enough to allow the air to move more slowly,

it is just about impossible to avoid having some cold air on the floors of houses having loose windows and doors, as so many have. The only thing to do is get rid of it before it becomes a real draft. Using more than one cold air return will help.

Mr. McGowan's letter and solution of Mr. Turton's problem are very good, though he does not say anything about the proportion between the first and second floor registers. Too large an opening into the second floor would overheat it.

I will not attempt to offer a better solution than Mr. McGowan's, though I believe cutting out the bottom of the partition and setting the furnace two-thirds under the living room and one-third under the stairway would be just as efficient, and might be cheaper if the register required for the second floor were large.

I will have to be shown if it is possible to make the bathroom ten degrees hotter without a pipe.

Respectfully,

E. S. HARRISON.

Williamson Heater Company Establishes Sales Offices and Warehouse in Chicago.

The Williamson Heater Company, Cincinnati, Ohio, has opened a Chicago office at 15 East Van Buren Street, Building Material Exhibit, and is carrying a complete stock of Williamson Furnaces and Snow White Laundry Dryers. Mr. Roy J. Keith is Manager.

A traveling force of seven men is covering the territory supplied from this office with a very elaborate 1923 cooperative dealers' sales campaign.

The Williamson Heater Company is one of the largest exclusive furnace manufacturers, having been in operation over forty years and making a complete line of warm air furnaces for all requirements, both pipe and pipeless.

They have also been manufacturing laundry dryers for something over thirty years and this last year have developed the Snow White Cabinet Clothes Dryer, suitable for

homes and apartments, which is handled through dealers.

The Chicago office shows on their sales floor samples of the 600 Series furnace and the 300 Series, with the special dustproof shaking and dumping device. They also have on display the Snow White Cabinet Clothes Dryer.

Brillion Iron Works Goes After Greater Business on Warm Air Furnaces.

The Brillion Iron Works, iron founders of more than forty years' standing, Brillion, Wisconsin, which have been making warm air furnaces for local installations for several years, have now come to the point where they know that they have a good furnace—from actual expressions of satisfaction on the part of those in whose homes the Brillion furnaces were installed, so they are reaching out for business in a larger territory, covering Wisconsin, Minnesota, Iowa, northern Illinois and part of Michigan for this year.

The Brillion warm air furnace is of all cast construction, with one-piece horseshoe radiator, two-piece fire pot and either circular center-dump or four-section triangular grates. Catalog and terms may be had by writing to Brillion Iron Works, Brillion, Wisconsin.

Minneapolis Office of Henry Furnace & Foundry Company Handles Nearly All Western Sales.

The western sales office of the Henry Furnace & Foundry Company, which was recently established at 106 Third Avenue North, Minneapolis, with W. M. Warren in charge, will handle all business in the West except Texas, Kansas and Missouri.

A. N. Gleason, formerly state manager for the Samson Tractor Company, will cover Iowa, with headquarters at Waterloo.

E. C. Gratiot, also a former Samson man, has the Wisconsin territory, traveling out of Madison.

Charles Walker, well known to the Pacific Coast installers, has charge of the Portland, Oregon, section, and John Aamoth, an old timer in the furnace business, will cover Minnesota.

Arthur S. Wildt Will Keep Fairly Busy for a While.

Arthur S. Wildt, heating, sheet metal and plumbing contractor in Albion, Michigan, has secured two good sized jobs in his home town. One is for the heating and plumbing for a big truck company, \$4,500.00; the other is a \$9,500.00 contract for plumbing in the new James W. Sheldon Memorial Hospital.

Another Solution of Pipeless Problem of Charles Wilson.

In the following, S. E. McDowell, one of our Wisconsin subscribers, submits a solution for the problem presented by Charles Wilson, Monmouth, Illinois, who wanted to know whether a house, as shown on page 17 of our February third issue can be heated by a pipeless furnace:

TO AMERICAN ARTISAN:

Replying to Charles Wilson's pipeless furnace inquiry in AMERICAN ARTISAN of February third, would state that if he wanted to fill this same house with water it would not be necessary to pipe to each room, neither is it necessary in warm air heating.

Use a grill in base board of northeast bedroom and bedroom off dining room.

Set furnace so warm air register will be one foot from west wall of living room.

Open all inside room doors; build furnace fire and enjoy nice, comfortable rooms. In case you want bedroom heated and door closed, place grill over door and in base board, all as per sketch enclosed.

Yours for more one-pipe warm air heating.

S. E. McDOWELL.

—, Wisconsin, February 19, 1923.

Practical Helps and Patterns for the Tinsmith.

Aids to the Improvement of Craftsmanship and Business.
News from Various Branches of the Sheet Metal Trade.

MAKING COPPER COIL PIPE.

By O. W. Kothe, Principal, St. Louis Technical Institute, St. Louis, Missouri. Written especially for American Artisan and Hardware Record.

In the manufacture of stills for chemical plants, breweries, etc., coil pipes are a very common fitting.

the pipe is heated gradually from the top end, toward the further end and in this way gradually melts out the rosin.

However, in general practice sand is commonly used as a filler for bending copper tubing.

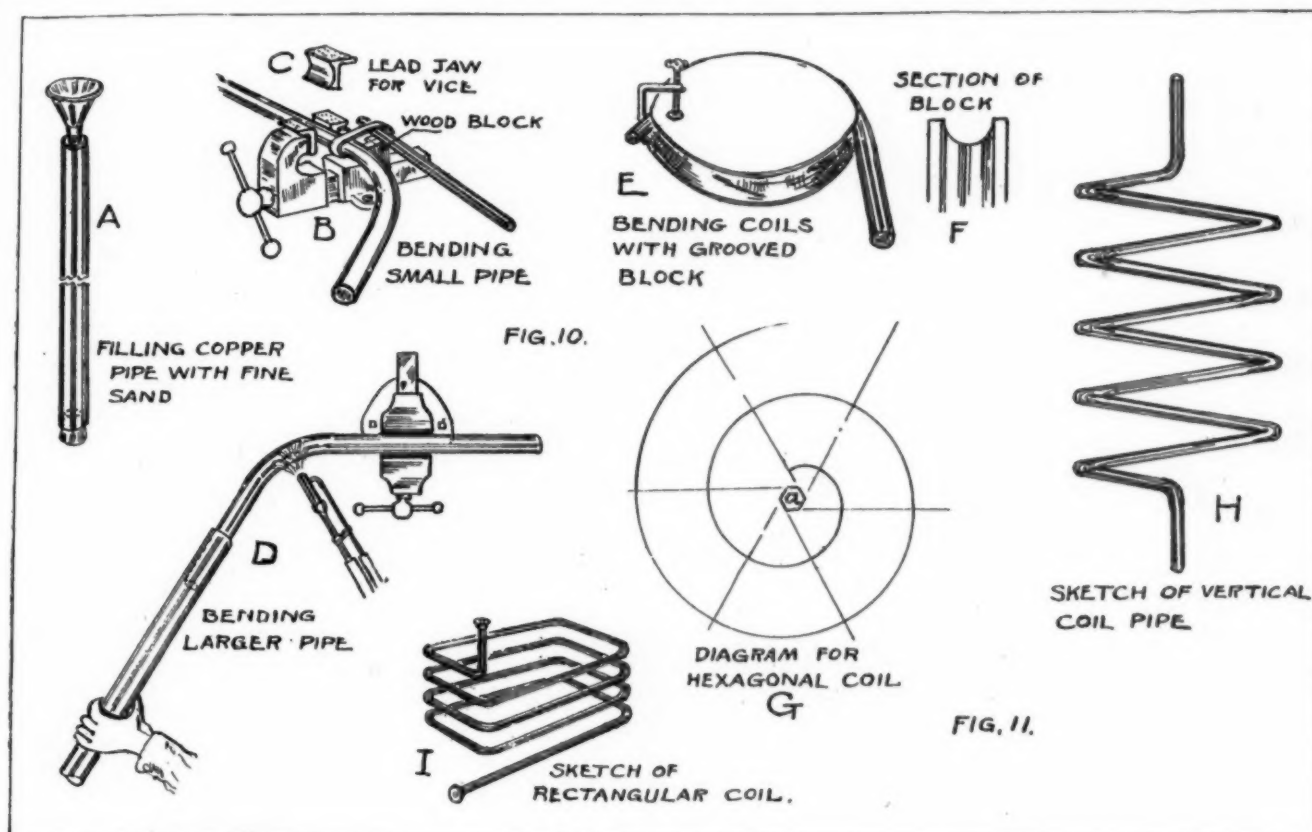
At A we show a sketch of filling a pipe with sand. The sand should be quite fine, and should be set and compact well in the pipe.

gradually.

On larger pipes a torch is placed in the position where the bend is to be made as at D.

This helps make the metal more flexible, and by tapping it lightly, as the bend is being made, no trouble will be met with.

The making of coils, as in figure 11, where we have a cylindrical coil as at H, a sort of grooved block as



The bending of copper pipe is very simple when undertaken by the right methods.

Many of the larger shops have regular bending machines, in which most any shape of the curve can be easily produced, so it is round and still holds the pipe uniform.

Small pipes are best bent by filling with rosin. The rosin is heated and one end of the pipe is stopped up and the pipe is filled full of rosin and permitted to cool.

When set the pipe may be bent wherever desired. After being bent,

This is done by tapping the pipe with a mallet as the sand is being filled in.

When filled the top end is corked and the bend can be made similar as at B in figure 10 in an ordinary shop.

Lead jaws are cast of a similar radius to the diameter of pipe as at C and these are set in the vise for holding the pipe secure.

Then by means of the band iron link, or a piece of rope, and a block of wood, with a bar, set in the position shown, the bend is made

at E and F may be used for making the bends in coil.

In this way as many revolutions are made as are required and afterward the space between the revolutions are averaged up and adjusted so a uniform rise and curvature is maintained.

Where coils are to be made to suit a spiral as at G figure 11, then the spiral is designed from the center either by means of a triangle, or square or hexagon as in this case.

By using the various corners of the hexagon a, the spiral is described

making as many revolutions as desired.

After this the copper tubing is bent either with a bending block as at E or in a vise as at figure 10.

As the pipe is being worked, it is occasionally fitted to the working drawing G, so the lines will be followed.

Where a rectangular coil, as in sketch I is met with, then the bends are made to a 90 degree and the pipe is pulled apart, to give it the coil effect.

All this requires practice and when a person once understands give and take in metal, especially copper, all this is very easy.

It is commonly reported, and that by many coppersmiths, the main thing about coppersmithing is hard work, and in that we agree because after the knack of working the metal has been acquired the rest is just labor.

It is, however, a sort of labor that carries skill with it.

Folder Illustrates Strikingly Tremendous Growth of Kester Solder Sales.

A very handsomely illustrated folder has just been published by the Chicago Solder Company, manufacturers of Kester Self-Fluxing Wire Solder, in which the unusually rapid growth in popularity of this product is strikingly illustrated by the use of reproductions of the well-known spool of Kester Solder.

In 1919 the spool was less than one-quarter inch in diameter; 1920 showed an increase of 150 per cent; 1921 an increase of 65 per cent above 1920; 1922 an increase of 70 per cent above 1921.

It is interesting and pleasing to us to note that 1919 marked the beginning of the company's advertising campaign in trade and class publications and the following excerpt from a letter signed by A. A. Lansmann for the company gives credit for a liberal portion of this increase to their consistent use of this kind of advertising:

"For your information, will say that the year 1919 marked the start

of our consistent advertising campaign in various trade papers, and that we certainly have had since that time good reason to believe that a liberal portion of our yearly increases can be accredited to our consistent use of this medium."

Iowa Sheet Metal Men Have Excellent Program for State Convention.

Wednesday and Thursday, March 14 and 15, are the big days for the Iowa Sheet Metal Contractors' Association, for on those days the State Convention will be held in Hotel Martin, Sioux City.

Here is the program. It will be worth your while to be in attendance both days, you Iowa Sheet Metal men, so make up your mind now and reserve your room today:

Wednesday, March 14, 1923.

8:00 a. m.—Registration and distribution of badges.

10:00 a. m.—Convention called to order by L. M. Cahill, President of Sheet Metal Contractors' Association of Sioux City.

Address of welcome, A. B. Darling, President of Sioux City Chamber of Commerce.

Response, N. A. Lichty, President Iowa Sheet Metal Contractors' Association.

Committee appointments.

Question Box.

1:00 p. m.—Roll call.

Minutes of previous meeting.

1:30 p. m.—Address, "Business Is Business," Don F. Holt, Vice President Iowa Master Plumbers' Association.

2:15 p. m.—"Salesmanship," by W. G. Graham, Salesmanager Johnson Biscuit Company.

3:00 p. m.—"Making Sheet Metal Workers," by L. M. Cahill, Instructor, Apprentice School, conducted under the joint auspices of Local Union and Sheet Metal Contractors' Association of Sioux City.

3:30 p. m.—Auto ride, ending at Philip Bernard factory for tour of inspection.

6:30 p. m.—Banquet, Martin Hotel banquet room. Jobbers' and Salesmen's Auxiliary, hosts.

7:30 p. m.—Entertainment, C. F. Anderson, master of ceremonies.

Thursday, March 15.

9 a. m.—"Furnace Merchandising," by E. C. Taylor, Salesmanager Premier Warm Air Heater Company, Dowagiac, Michigan.

9:45 a. m.—"Fan Blast Heating for Residences," by E. L. Jaynes, President Northwestern Furnace and Supply Company, Minneapolis.

11 a. m.—Question Box.

12 noon—Lunch at Chamber of Commerce. Address by George M. Evenson.

2 p. m.—Reports of officers and committees.

Election of officers.

Selection of 1924 Convention city.

That the ladies will be well taken care of is a foregone conclusion. the Ladies' Registration Committee consisting of Mesdames L. M. Cahill, S. E. McLaughlin and William Groh.

Wednesday at 2 p. m. there will be a matinee at the Orpheum Theater.

In the evening the ladies will attend the banquet.

Thursday noon they will have luncheon at Davidson's Tea Room, and the afternoon will be spent visiting interesting industrial plants.

United Alloy Steel Corporation Appoints New Sales Representatives.

United Alloy Steel Corporation, Canton, Ohio, announces the appointment of The Andrew Carrigan Company as Sales Representatives on the Pacific Coast. The Carrigan people have offices in the Rialto Building, San Francisco; Equitable Bank Building, Los Angeles, and L. C. Smith Building, Seattle. They will handle steel and Toncan metal sheets manufactured by the Stark Division of the United Alloy Steel Corporation.

You can restrain the bold, guide the impetuous, encourage the timid, but for the weak there is no help. You might as well undertake to stand a wet string up on end.

The Cost of Doing a Sheet Metal Business Is Brought Out in Detail by Mr. Young.

Detroit Sheet Metal Contractor Shows How Necessary It Is to Know All About All Expense Items.

THE figures that I have here may not check properly and they may not agree with your way of thinking, but that is neither here nor there, the big thing is "the idea."

I want you to go along with me, line for line, also read between the lines.

It will not be necessary for you to ask questions or argue among yourselves, but to take the idea home with you and apply it to your business.

With your permission, I will read this canned speech pertaining to the Sheet Metal and Roofing Business.

We are in business to make a living and a profit.

The good turn-out to this convention is ample proof that you have made at least a living.

It is not my intention to criticize our business, nor to tell you your business,—a business that you have made a life study of, but—how about the profit?

There are some of you that *have* made a living and a profit out of your business. Why?

Because you have asked for a profit and insisted on getting that profit which is rightfully yours.

There are some of you that have made a profit by applying a smaller margin of profit on your cost than your competitor.

You have increased your volume of sales, but you have taken your competitor's profit.

There are some of you that have made a profit, not by taking business away from your competitor to increase your volume with a small margin of profit, but by applying the time saved by not having the increased volume, to construction details, labor, merchandise and expense.

You all feel that you have mastered the problems of the business.

Now, as a reminder of the fundamental principles of our business, let us first recall the day you started.

Do you remember when you opened your ledger that Capital, your investment, was there?

Do you remember when you walked through the office door, "Expense" slipped in with you—and insisted on being your partner?

Men, representing tools and equipment, material, labor, productive and non-productive, appeared—and you gave them all a place in your ledger, and when everything was arranged in tip top shape, you found that you had a little left over, and not to forget, you found a place in the ledger and called it "surplus."

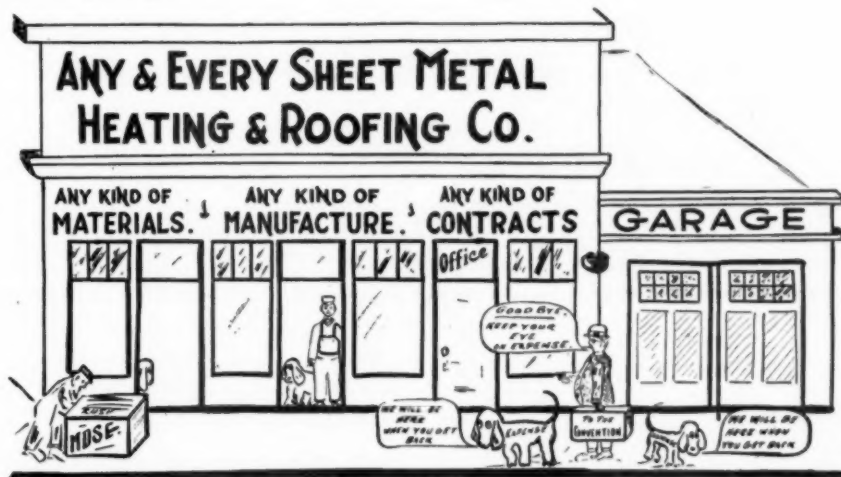
And then, on looking around, you found that you had four assistants, namely, Investment, Merchandise, Labor and Expense, to run the business for a profit to make that surplus grow.

away from your competitor, but to stimulate business and to keep your organization working to have an income to balance your expense, also known as overhead.

This practice is good business, but don't practice it on all of your estimates and don't compare your business with manufacturing concerns who base their selling price from year to year on past costs, overhead included, but not including profit, knowing that greater efficiency of production and a larger volume of sales would bring in the profit.

We may say that this can be done in the roofing and sheet metal business as well as in the manufacturing and merchandising business, providing we can increase the efficiency of our labor.

We can't consider volume on this basis and be on the level with our competitor.



Cartoon Showing That Expense Enters Into Everything Connected With a Sheet Metal Shop.

In checking up your records of the past, you will find that the four items mentioned have played an important part in all of your transactions for a profit, with the exception of now and then when you juggled the margin of profit; not because you wanted to take a job

There is only one legitimate way of increasing our volume and not interfering with our competitor's profit, and that is:

1. Promote the roofing and sheet metal industry by using good materials, and good workmanship.
2. Redeem some of the lost lines

of the trade, especially cornice work.

3. Promote new lines for the uses of sheet metal.

4. And don't forget that a warm air furnace, properly installed, is the most satisfactory heating system for a home.

But before you can make it so, you will have to increase your present selling price and then see to it

along side the labor of fifteen or eighteen years ago.

Remember the big day's work, the good wormanship the old boys were used to? You have the answer.

Remember the tools they used, and the ones we have today?

We still have the same firepot, same snips, same hammer, same

competitor's profit.

But let us first make up the estimate.

First: We figure the quantity of the materials required, all as specified, and we set down merchandise at present market price, so much in dollars and cents.

Second: We estimate the labor required to the best of our judg-

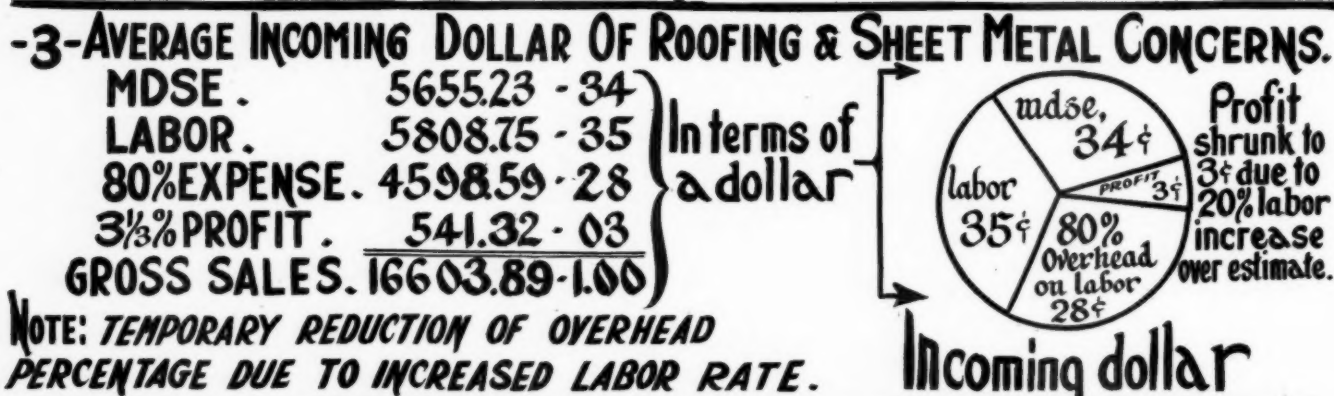
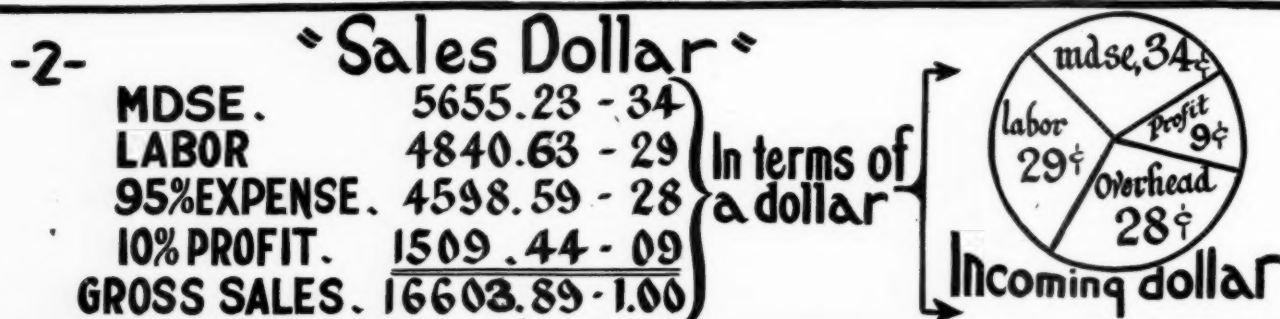
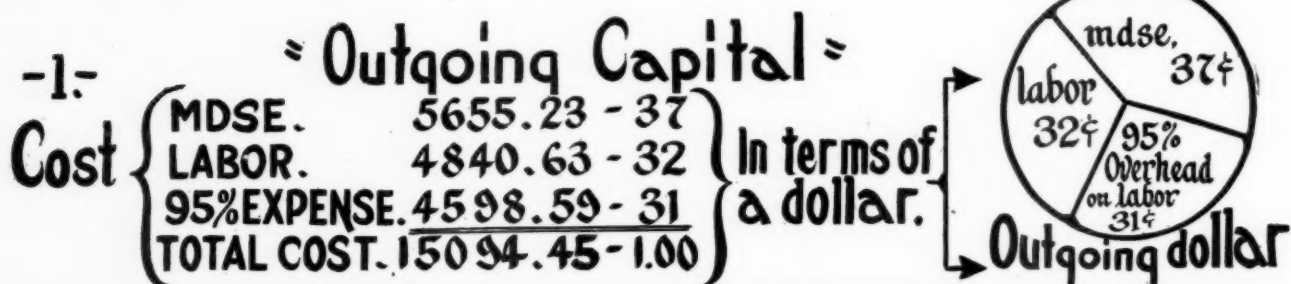


Chart Showing How Outgoing and Incoming Dollars Are Divided.

that the wall stacks are properly placed; all connections and joints throughout the system, gas, dust and air tight; a real tight joint between the registers, sheet metal and plaster; a fire pot and dome with plenty of room for combustion; a well balanced system of supplies and return. This will mean volume and a greater profit.

Labor Must Produce More.

On the other hand, let us see what could be done with labor. Take our labor of today and put it

rope and pulley, same tar kettle, the same brake.

The only difference is, they used to take care of the tools years ago—they were cheaper then than they are today.

The only thing we haven't got any more is the old horse; in his place we have a flivver, increasing our efficiency in making the rounds to our jobs to see how little is being accomplished.

Now right here is where we can make a profit without reducing our

ment and past records of cost, and we set down, labor so much, in dollars and cents.

Third: Now that we have the labor it is quite easy to add the proper amount of expense based on our established overhead percentage and on the present expense budget, and we set down expense (or you can call it overhead), so much money. You can split this expense item and charge expense direct to job the same as merchandise and labor, and the balance as overhead; but the

total should be the same in each case.

Now we have three items, the total of which will be the cost of the job.

But when we started the business, we had four items—Investment, Merchandise, Labor and Expense.

So far we have taken care of the last three items, Merchandise, Labor and Expense.

The first item is the one that sets us in business and is yet to be considered, and we will therefore add a profit.

The amount or percentage is a question for you to decide. And so we set down, profit, so much money.

Now, we have taken care of all four items and the total is our selling price.

After signing the contract we start in to take up the matter of details. Details of Construction, Merchandise, Labor and Expense, and whatever can be saved on the estimated cost is clear "velvet."

The best way to dispose of this "velvet" is to distribute same to the parties directly responsible for it, including labor, you putting your share in your pocket along with the others, and the profit will go to surplus.

This method of ignoring the velvet in relation to your cost will prevent you from using a too low cost in your next estimate, and you retain the chances for more velvet, as well as protecting your competitor who may not have the efficiency at his command that you have.

But by playing fair he will be able to get his volume of business which he should have, at a profit.

There are several points that I want to bring out strong. They are:

1. Size up your capacity when deciding on the volume of business that you want to handle.

2. Remember this roofing and sheet metal business is limited.

3. There is a point in every business when the maximum point of profitable return is reached.

Translate your business into terms of one dollar.

This will put life and speech into figures so that they can fulfill their

true mission of telling you how your affairs are going.

There are one hundred cents in a dollar, and you should know exactly where every cent in every dollar of income went.

This will tell you at a glance how many pennies there are required to bring in a dollar.

It will tell you in a glance by comparing figures in connection with previous months or years, what items have cut into your profit, or what items have increased your profit.

The Outgoing Dollar.

Outgoing Capital, or work in process, consists of the cost of Merchandise, Labor and Expense and is charged directly to the contracts or jobs.

The overhead here represents 95 per cent on labor.

These three items are the cost of the job and your outgoing dollars.

This outgoing dollar is based on the average roofing and sheet metal job and is made up of 37 cents for merchandise, 32 cents for labor and 31 cents for overhead.

Offhand, I would say that the furnace and general sheet metal business will stack up about the same.

I believe that ventilating and special sheet metal work will figure to 21 cents for merchandise, 45 cents labor and 34 cents overhead.

Anyone of you may have the correct figure by checking up your own records.

Here we have Expense as one item.

This item can be split up just as you see fit, and freight, if any; trucking; probably non-productive labor and other items that are not productive labor or productive merchandise, can be charged directly to the different jobs under Miscellaneous Expense to jobs.

And the balance of the overhead can be charged as shown here. But inasmuch as the cost of the job will be the same, it will be less work to charge the expense in one lump sum, based on your percentage of overhead on your productive payroll or on the hour basis as you wish.

The monthly distribution of the expense should be charged in proper proportion to finished work, or cost of sales, and to work in process.

The monthly distribution of your expense to the individual jobs while in process is misleading.

That is, if it is done for the purpose of estimating your profit, unless you positively know that your overhead is in line with your budget and expense units and that you have the required volume of work in process and that all of your jobs will at least pay their proportion of overhead.

Otherwise you simply are temporarily burying your overhead in the cost of your large jobs in process, until such a time when you wake up to the fact that the full amount of the contract is taken up in Merchandise, Labor and Expense, and the contract is only three-fourths complete, and you only have three more months left in the year to finish up the year's business.

The way you have charged your jobs during the first nine months of the year, you have shown a profit, but you haven't any other big jobs in process to which you can charge your overhead for the last three months.

You will therefore have to turn to your book profits to pay for the cost of the jobs that are to be finished—jobs that did not pay the proportion of overhead.

But on the other hand, if you have other large jobs in process, you can keep on going, burying your overhead in these jobs, at the same time showing a book profit, or in other words, you are jumping from limb to limb.

But what are you going to do when there are not any more limbs to jump to? Then you will have to lay the cards on the table.

The remedy for this is a good bookkeeper.

(To be continued)

A business man who is as elastic about his promises as a rubber band can find no fault if, like the stretched band, they hurt when they snap back.

Technical School Student Solves Pipe Problem for Mr. Murphy.

On page 23 of our January 13th issue, J. Albert Murphy, one of our Missouri subscribers, requested assistance in laying out patterns for a branch elbow and tee combined.

We are in receipt of the following letter from Fred L. Barnum, Sheet

fitting is made of two pieces seamed at the throat or center of side fitting. The boy used a 60° elbow, doing away with the layout of a special odd degree elbow.

I hope the solution is worthy of your consideration.

Very truly yours,

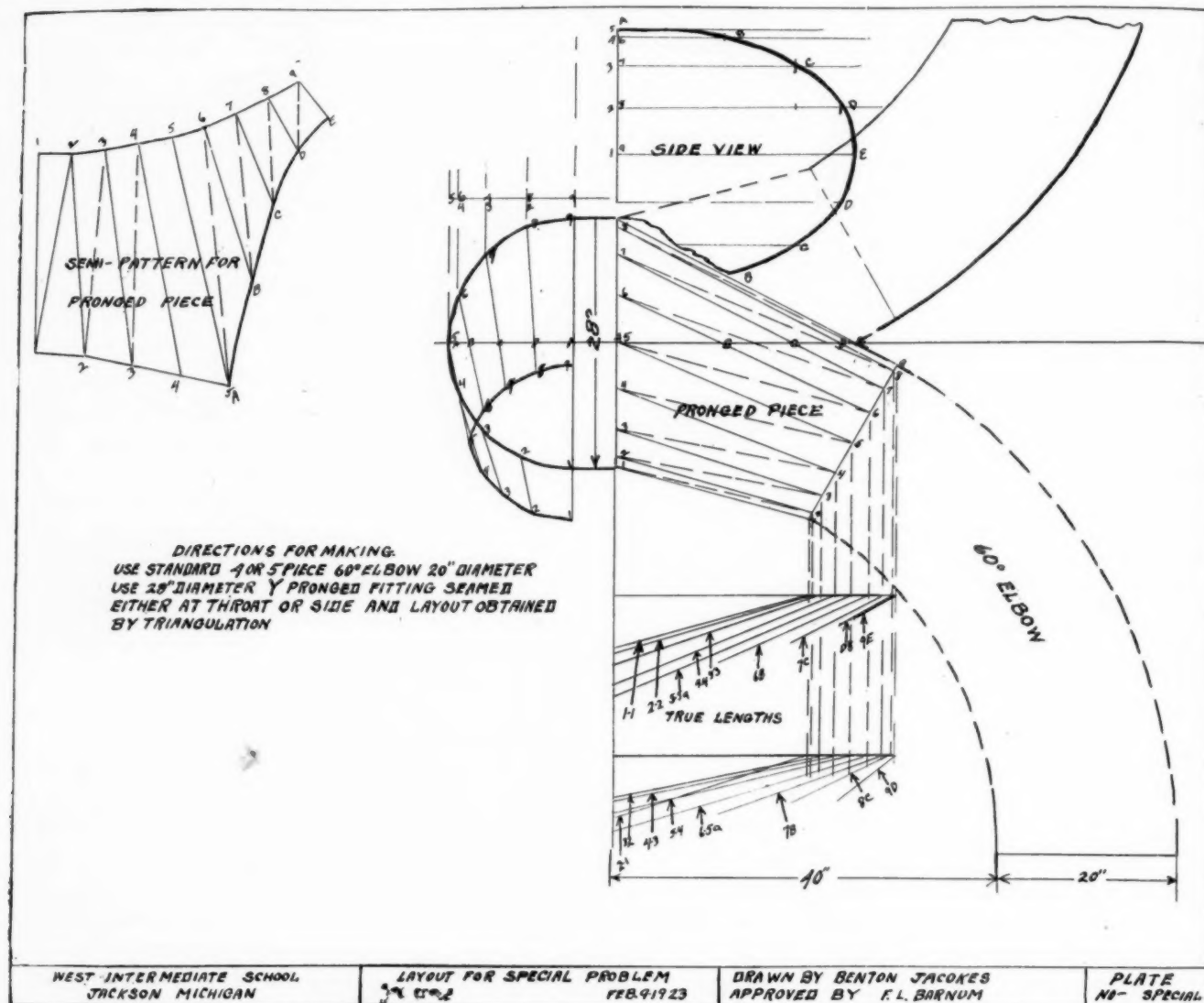
FRED L. BARNUM.

Jackson, Michigan,

February 28, 1923.

Badger Sheet Metal Men Have Fine Program for Convention March 14 and 15.

The program which has been arranged for the Ninth Annual Convention of the Wisconsin Sheet Metal Contractors' Association insures a meeting full of instruction and interest. The program, which was arranged by Paul L. Biersach with his usual efficiency, follows:



Metal Instructor in the West Intermediate School, Jackson, Michigan, together with tracing reproduced herewith:

TO AMERICAN ARTISAN:

Under separate cover I am sending to you a drawing of Y fitting and elbow to dimensions specified by Mr. Murphy in AMERICAN ARTISAN of January 13th.

The entire drawing and working of the problem has been done by Benton Jacokes, a "9A" boy in one of my sheet metal classes. The "Y"

Gibb Instrument Company Opens Sales Offices in Detroit, Michigan.

The Gibb Instrument Company, Bay City, Michigan, manufacturers of electric welding equipment, have opened a sales office in General Motors Building, Detroit, in charge of F. M. Luchs, formerly Chief Engineer for the Company.

Even a deadbeat is always willing to pay an old grudge.

Wednesday, March 14.

9:30 a. m.—Meeting of the Board of Directors.

10:30 a. m.—Address of welcome, Mayor D. W. Hoan.

Response, President John Bogenberger.

Report of Credential Committee. Reports of officers and committees.

Reading minutes of previous meeting.

Collection of dues.

New Business.

Proposal and election of new members.

Recess 12:00 m.

2:00 p. m.—A Practical Exposition and Survey on Furnace Installation, by Otto Geussenhainer, Sheboygan.

"The Furnace Manufacturer," an address devoted especially to the manufacture and selling of furnaces, their uses, etc., by J. L. Loell, Milwaukee.

"The Furnace Fan and Its Influence Upon Warm Air Heating Industry," by H. M. Snow, Dowagiac, Michigan.

Questions and general discussions.

Adjournment 5:00 p. m. sharp.

Banquet at 7:00 p. m. Entertainers: Members of Travelers' Auxiliary and Loi Georgiana James' Troupe.

Thursday, March 15.

9:30 a. m.—A paper, "General Ways for Sheet Metal Men to Advertise," by C. W. Pansch, Racine, with his personal observations.

"Good Advertising Methods, Individually and Collectively, for the Sheet Metal Industry," by Walter F. Dunlap, Milwaukee.

Questions and discussions.

2 p. m.—General Sheet Metal session.

"The Aspect of the Lien Law, Applying to Sheet Metal Contractors," by Maurice A. McCabe, Milwaukee.

"The Business Outlook," by S. A. Linnekin, Vice-President Babson Institute.

"Sheet Metal Products as a Fire Preventative," by H. C. Knisely, Chicago.

Questions and discussions.

Election of officers.

Naming of Convention city.

The Convention will, as usual, meet in Milwaukee, all sessions being held at the Republican House.

Notes and Queries

Galvanized Washers.

From Indiana Tool Company, Columbus, Indiana.

Will you kindly let us know where we may obtain two-inch gal-

vanized washers, for use on Sanitas Spuds?

Ans.—Quadrige Manufacturing Company, 213 West Grand Avenue, Chicago, Illinois. As "Sanitas" Spuds are made by the Trenton Brass and Machine Company, Trenton, New Jersey, no doubt you can also secure the washers from them.

"Farquhar" Furnace.

From R. B. Quimby, 121 North 16th Street, Lincoln, Nebraska.

I should like to know who manufactures the steel furnace called "Farquhar."

Ans.—The Farquhar Furnace Company, Wilmington, Ohio.

Tinning Outfit for Ice Cream Cans.

From Ig. Koerner and Sons, 124 West Main Street, DuQuois, Illinois.

Can you tell me who manufactures an outfit for retinning three and five-gallon ice cream cans?

Ans.—Callander Soldering Process Company, 12 South Jefferson Street, Chicago, Illinois.

Metal Marquees in Kankakee.

From Melzer Sheet Metal Works, 774 Bates Street, Appleton, Wisconsin.

What is the name of the concern in Kankakee, Illinois, that makes metal marquees?

Ans.—This is the James H. Watson Company of Bradley, Illinois, a suburb of Kankakee.

Forms for Making Concrete Tiling.

From Louis I. Drackert, Tipton, Missouri.

Who makes forms for making concrete tiling?

Ans.—Concrete Equipment Company, 520 Ottawa Street, Holland, Michigan.

Lithograph Work on Copper.

From Benedict and Thys, Clinton, Wisconsin.

Will you kindly advise us who does lithograph work on copper?

Ans.—Etching Company of America, 1526 Montana Avenue, and General Etching and Manufacturing Company, 312 South Hamilton Avenue, both of Chicago, Illinois.

Washing Machine.

From A. F. Schemmer, Rock Valley, Iowa.

Kindly advise me who makes a washing machine with a large tub, like those used in hotels.

Ans.—Hurley Machine Company, West 22nd and 54th Streets, Cicero, Illinois; American Laundry Ma-

chinery Company, 208 West Monroe Street, Chicago, Illinois, and Gillespie-Eden Corporation, 158 North Wabash Avenue, Chicago, Illinois.

"Crusader" Furnace.

From George Bishoff, Marinette, Wisconsin.

Who makes the "Crusader" furnace?

Ans.—Boynton Furnace Company, 58 West 40th Street, New York City, and stock in Chicago is carried by Manny Heating Supply Company, 131 West Lake Street.

Address of Peerless Manufacturing Company.

From R. L. Spellerberg, 35 Eighth Street, Dubuque, Iowa.

Can you tell me where the Peerless Manufacturing Company, makers of fireplaces and mantel fronts, is located?

Ans.—Louisville, Kentucky.

Brass Cup Hooks.

From Oral C. Fitz, 644 Mill Road, Ravenna, Ohio.

Please advise me where I may buy brass cup hooks.

Ans.—Bullard and Gormley Company, 54-62 East Lake Street, Chicago, Illinois.

Nickel-Plated Zinc Sheets.

From Russell and Son, Fayette, Ohio.

Where can I buy nickel-plated zinc sheets?

Ans.—Apollo Metal Works, La Salle, Illinois; National Sheet Metal Company, Peru, Illinois, and American Nickeloid Company, Peru, Illinois.

Pressed or Spun Balls of Sheet Metal.

From Elmer E. Haag, 395 South 2nd Street, Newark, Ohio.

Will you please let me know who makes spun or pressed balls of sheet metal about two feet in diameter? Must be water tight.

Ans.—Gerock Brothers Manufacturing Company, 1252 Vandeventer Avenue, St. Louis, Missouri.

Machine for Making Paper Bags.

From E. F. Clark, 1426 South Carr Avenue, Sedalia, Missouri.

Please let me know who makes a machine for manufacturing paper bags, such as are used by grocerymen.

Ans.—Lockport Machine Company, Lockport, New York, and Fischer Machine Company, 310 North 11th Street, Philadelphia, Pennsylvania.

The Latest News About Stoves and Ranges.

Items and Discussions of Interest to the Manufacturer and Retailer of Kitchen Ranges, Heating Stoves and Accessories.

Peninsular Stove Company Issues New Catalog of Gas and Combination Ranges.

Printed in its usual high-class manner, the Peninsular Stove Company, Detroit, Michigan, has just published a very fine catalog of gas and combination ranges, water heaters, hot plates and kitchen heaters.

One of the most interesting features of this catalog is the section devoted to the description and illustration of the "New Direct Peninsular" combination coal and gas ranges. These "new style" combination ranges include a complete coal and wood range and a complete gas range, built into one unit, but each one being separate and distinct from the other and each one with its own oven.

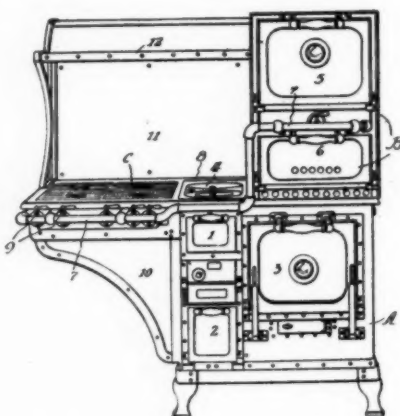
The "New Direct" series are made with four holes for coal and four for gas, size of top being 26x50 inches, and are trimmed with white enamel door panels, splashers and burner box pans with nicked base, or may be had in black base with black splashers, but with other enameled trimmings, as on the first range.

Lieser Secures Patent on Combination Range.

Patent has been issued to George A. Lieser, salesman for the Malleable Iron Range Company, Beaver Dam, Wisconsin, for a combination range which is shown in the accompanying illustration, the patent rights having been assigned to the company.

The combined range comprises a coal burner section A, a gas oven and broiler section B, and a gas top C arranged as indicated in the drawing, that is to say, the coal section constitutes the base or body of the structure, the combined gas oven and broiler constitutes a super-

structure arranged as shown to rest upon the top of the coal section at the right hand thereof and the gas top C constitutes an extension projecting toward the left without floor contact, which arrangement is entirely feasible by reason of the fact that the preponderance of weight is carried by the opposite end of the structure. The relative right and left hand positions shown may obviously be reversed, although the arrangement indicated is generally



preferred as constituting a more convenient location for the respective sections.

Mr. Lieser's principal claims follow: In a combined cooking range, the combination of a coal burning section constituting the base of the structure and designed exclusively for the burning of coal and having a coal heated oven at one side thereof, a gas burning superstructure of less width than the coal burning section and superimposed upon the latter above the oven thereof in position to leave exposed a portion of the coal burning section, to constitute a cooking top therefor, the gas burning superstructure being divided into a lower broiling section and an upper oven section and provided with a gas burner intermediate the oven and the broiler, and a gas burning cooking top constituting an extension from the coal cooking top and on the same plane therewith, substantially as described.

Schuknecht Sales Company to Handle Leonard Range Line.

The Leonard Range Company, Indianapolis, Indiana, manufacturers of Leonard Hi-Oven Ranges, has closed a contract with the Schuknecht Sales Company, Sumner, Iowa, whereby this company is to handle the sale and distribution of the Leonard line in Iowa, Minnesota, North Dakota, South Dakota and Nebraska.

The Schuknecht Sales Company is composed of the three Schuknecht brothers, Allen C., Earl D., and Leslie A., who are well known amongst Iowa dealers. They operate, and have conducted very successfully for a number of years, a hardware store at Sumner, Iowa. The store was founded many years ago by their father, W. J. Schuknecht, and is still operated under his name.

The Schuknecht brothers, having been very successful for the past seven years in retailing the Leonard line, are especially well fitted for marketing this line through other dealers in the territory they have taken over. They realize fully the retailer's viewpoint and problems and will be able to render a real merchandising service to their dealer customers.

Pasha Headquarters Will Be Moved to Philadelphia on April First.

By action of the Executive Committee of the Pennsylvania and Atlantic Seaboard Hardware Association, the Association offices will be moved April first from Pittsburgh to 601-604 Wesley Building, 17th and Arch Streets, Philadelphia, Secretary Sharon E. Jones being in charge, of course.

We are apt to look upon candid friends as enemies.

Events and Progress of the Hardware Trade.

**What the Retailers, Jobbers and Manufacturers Are Doing.
Latest Selling Methods and Experiences of Successful Men.**

April First Is Last Day Entries for Window Display Competition Will Be Received.

Get on the job, you window display artists, and send in your entries for AMERICAN ARTISAN AND HARDWARE RECORD Window Display Competition for one hundred dollars in real honest-to-goodness gold! The last day of entry is on April first!

This competition has for years been conducted by AMERICAN ARTISAN AND HARDWARE RECORD, and the fact that a window display artist takes part in the competition puts him at once in the class of "the select ones"—those who stand for progress in this important feature of the hardware business.

So get in line—right now.

Your display may be made up of goods from any of the following lines: General hardware, machinists' supplies, builders' hardware, automobile supplies, sporting goods, fishing tackle, house furnishings and paints, cutlery, dairy supplies, stoves, ranges, warm air heaters, sheet metal or kindred lines.

The photograph, together with description of how the window display was arranged and the materials used, may be sent by mail or express, charges prepaid, and must reach this office not later than April 1, 1923.

Each photograph and description must be signed by a fictitious name or device and the same name or device must be placed within a sealed envelope containing the real name and address of the contestant, this sealed envelope to be enclosed with the photograph.

AMERICAN ARTISAN AND HARDWARE RECORD reserves the right to publish all photographs and descriptions submitted in the contest.

Four prizes, totaling \$100, are to be awarded for the entries adjudged the most meritorious. These

are: First prize, \$50; second prize, \$25; third prize, \$15, and fourth prize, \$10.

1924 Convention of Kentucky Hardware Merchants Will Be in Louisville, January 22 to 25.

Secretary-Treasurer J. M. Stone, of the Kentucky Hardware Implement Association, informs us that the 1924 Convention and Exhibit of the Association will be held January 22nd to 25th, inclusive, in Louisville.

Mr. Stone also wishes to make it known that contracts for space will be ready about April first.

Put Price Tags in Your Window and Beware Clashing Colors, Advises Expert.

One of the greatest stimuli to the sales force is a good, live window display. Indeed the effect on the sales force has been found to be one of the greatest benefits of good window advertising. The window is for the purpose of selling goods. It is not for amusement, stunts, ornamentation or entertainment, especially in a store with but one or two windows.

The window is the face of the store. Therefore, keep your face clean and attractive and make it a real sales producer. Some men at great expense have placed a varicolored fountain in the window. People said, "How beautiful!" But not one came in to buy goods. Another dealer in raincoats used the same water, but he took a raincoat, filled it half full of water and had some fish swimming around in the water. This window sold goods.

The foregoing are suggestions made by John W. Gorby, Director of Publicity, Cyclone Fence Company, Waukegan, Illinois, in recent addresses before state hardware conventions. Mr. Gorby's sales window

hints should be studied thoroughly. Continuing, he says:

For most stores it is better to put price tags in the window. Markets are divided into sub-market, market and market plus. For the first two, price tickets are preferable dealing with the so-called lower and middle classes. If your store is patronized by millionaires only—then we advise you to leave off the tags.

But for 98 per cent of all hardware locations, it is better to use the window price tags. People are proud, even many of us who have very little to be proud of, still maintain a high, proud spirit. People of this nature will not be placed in a position where they may be made to appear small, so they pass by the store unresponsive to the window's appeal.

Many dealers whose windows have been most successful carry a little sales talk along with the price tags. Some say more by carrying a little red ribbon to the glass with a printed message or selling talk. All this is good. Be sure to have your name not only above the awning and over the door, but also at the bottom of the window where it may plainly be seen.

Let a dominant idea be the very soul of the window display. That is—for Autumn a hunting scene—for Spring, improving the lawn with growing grass in a real soil, with flowers and ornamental guards and fencing. Never throw a lot of unrelated things in the window. It only creates a jumble in the people's mind, whereas what you want is a clear-cut definite message.

The seasons themselves offer the best opportunities for window displays; the typical colors are as follows:

White for Easter; brown for Autumn; red and gold for Christmas; French gray makes a fine permanent background.

Some store windows are ruined by glass reflections so that it is not pleasant to look into them. The dealer will not profit largely unless the people have pleasure in looking in at his store windows. I know an enterprising store which is well known and otherwise prosperous, but the reflections on the glass windows both by day and by night are decidedly unpleasant to the passer-by. Unquestionably this fact has retarded this store's prosperity.

A few simple rules for successful window displays are:

1. Use dark colors below light ones.
2. Never use more than three colors in any one window display.
3. Use light colors where the light is not bright enough to show display plainly.
4. Use soft colors where the prevailing color of the store is pronounced.
5. Keep some distance between floral designs—don't put any two near each other.
6. In summer use white—light green—light blue.
7. In winter better use orange, light yellow or red.

The following is offered as a good suggestion for harmony in colors:

Orange may be combined with purple, blue green, blue, black, green and violet.

Black with red, light yellow, orange, green and yellow.

Blue with yellow, orange, red, scarlet, normal red, green and yellow.

Violet with yellow, yellow green and orange red.

Red with dark blue, green and yellow.

Purple with orange, blue green and orange yellow.

Yellow with red, blue and sea green.

These colors make war on each other: orange and purple; violet and scarlet; green and blue; green and orange yellow; blue and blue green; purple and pink; green and turquoise and violet and normal red.

Traveling Salesman Gives View of Hardware Merchant.

Seymour N. Sears, New York, one of the best-known traveling men in the Hardware business, gave an address before the Retail Hardware Association of Philadelphia recently on "The Merchant as Seen Through the Eye of the Traveling Man."

He delivered one of the most pointed and most helpful talks ever given to the local Association, according to an Eastern publication, and because of its timeliness and general applicability we are glad to reproduce the following report:

The traveling salesman could help the retailer in dozens of ways if permitted to do so; the traveling man cannot but help learn many of the details regarding the retailer's business, but nevertheless this information is held in the confidence of the traveling man, whose honor is proverbial.

Illustration after illustration was given showing the laxity and inexperience of the ordinary counter salesman. Sales were lost through lack of salesmanship and by reason of the fact that the average counter-man never employs the power of suggestion in making a sale.

Concerning store decorations and the matter of shelving and equipment, Mr. Sears cited illustrations from other states where hardware stores had been most successful without the aid of expensive shelving and flashy showcases. He emphasized the fact that it was not the store furniture that developed the business but rather the aggressiveness and ability displayed by the management.

As to credits and the refusal of many retail merchants to furnish a financial statement to the mercantile agencies, the speaker believed any retailer who adopts this attitude is harming his own business and retarding his own growth. It was the policy of his company not to sell any retailer who refused to give a financial statement of his business, claiming that no retailer has a right to ask credit who is unwilling to show how he stands in a business

way. Bills should be discounted regularly; any bank is willing to loan all necessary funds to any retailer who is willing to show his bankers how his business stands.

Mr. Sears dwelt at considerable length on the fallacy of price cutting. Some retailers after securing an extra discount from the manufacturer would immediately cut the price proportionately instead of retaining the extra profit as the manufacturer had expected him to do. The average hardware dealer had spent as much time in learning his business or his trade as any professional man or mechanic, but that the average man who chose a professional career would command an income two or three times as great as the hardware retailer and yet the knowledge required and the labor entailed is not as great as that required to manage a hardware store.

Dealers should use better judgment in fixing selling prices, bearing in mind that they were entitled to a price which would pay their overhead expenses, provide a decent salary for their own services, and in addition a fair income on the amount of capital invested in the business.

Another important fact brought out is the fact that the dealer is constantly being urged to replace broken articles, particularly tools, and the statement was made that out of all tools returned for replacement that 85 per cent were broken through the fault of the user. Investigation showed that in no other line of business was this return privilege abused as much as it is in the hardware trade.

It appears that many articles sold in hardware stores are today being sold at a price which leaves absolutely no profit to the retailer, and in some cases do not even pay the overhead expenses. Such merchandising methods only lead to disaster, and while the dealer may continue to remain in business year after year he is receiving no adequate return either for his labor or for the capital invested.

Do the thing you are afraid to do.

Suggestions and Plans for Window Displays.

Instructive Examples from Exhibits in AMERICAN ARTISAN AND HARDWARE RECORD Window Display Competition.

A Spring Time Window Display.

"In the spring the young man's fancy lightly turns to thoughts of love," sang the poet, but with Otto J. Gress, window display artist of Bunting Hardware Company, Kansas City, Missouri, it appears that his thoughts have turned to seeds, paints, garden tools and tanglefoot—the kind that is used to keep bugs from getting at the leaves and buds.

companying illustration, as follows:

"This window effects a triple tie-up on three spring essentials—seeds, garden tools and paints. The background of seed packages with the gay colors, showing at a glance crimson radishes and tomatoes, yellow pumpkins, green spinach, pansies, asters and others, a combination of bright colors which is attractive in itself. Who can resist the temptation of garden making or spring clean-up after seeing this?"

Acquaint the Public with Services You Render.

In the *New York Times* of December 3 a half column story was printed under the heading, "Service Is Keynote in Pushing Sales." In the *Savannah, Ga., News* of December 9 another long story was printed having this headline, "Paint Companies Stress Need of Individual Nowadays." These are but two of many examples of valuable pub-



Window Display of Seeds, Paints and Garden Tools, Arranged by Otto J. Gress for Bunting Hardware Company, Kansas City, Missouri.

So he designed a window display in which all of these things and many others were displayed to excellent advantage—with the result that the thoughts of many Kansascitians were also turned toward gardening and the things that go to make the front yard or the flower section of the back yard beautiful and the cabbage section a sight for sore eyes.

Mr. Gress describes the window display, which is shown in the ac-

Good use is made of the large colored posters advertising the two brands of seeds, and attention is directed to the need for spraying plants and trees to protect them against bugs, by the posters to the right, headed "Spray and Slay."

The cut-out letters, spelling the word "Paint," help wonderfully to arrest the attention of the passer-by.

On the whole, Mr. Gress may well feel proud over this very effective and timely window display.

licity being secured by far-sighted paint men.

These men realize that the public wants to know about the service the industry is rendering to property owners, and the practical side of their foresight is found in the fact that newspaper editors devote many columns of space to these news items about the paint trade. This publicity makes the selling of paint easier by driving home the relation of paint to property life and mainte-

nance costs, and has been found by many of the larger institutions as well as local firms to be an effective way of making their advertising more productive.

This great industry of ours is essentially a service industry, our products conserve, protect and beautify property of every description, and this is the appeal that will sell our product—stressing not so much our product as the consumer's property and its protection.

The National Save the Surface Campaign, through its national advertising, is doing a great deal toward educating the public to this truth, but it alone cannot accomplish the objective, "To Make 1923 the Greatest Paint and Varnish Year"—there is not enough of this advertising to do the job, says *Save the Surface News*. Local publicity will help and every paint and varnish man in every town and city in this country should constitute himself a committee of one to do all he can to spread the word about local paint doings.

Service to a community or its citizens by a local man or concern is news. The service the paint and varnish men are rendering in all communities is welcome material to newspaper editors.

President, secretary or a specially appointed publicity director of paint clubs and other organizations of paint men are the men to see that the newspapers know about the meetings held, visits local paint men make to conventions, or any other unusual activity. Make a friend of your editor and do not hesitate to telephone him about news items. This is part of the plan that will be used to double the industry by 1926.

Merchants Should Follow-Up Home Purchases for Sale.

Hardware stores are constantly selling supplies which go into the erection of homes—such as nails, window glass, fixtures, and so on.

But how many hardware stores follow up all the sales of this type they make and try to get the occupants of such homes to buy

kitchen equipment, boxes of tools, sporting goods and other articles from the store?

Undoubtedly considerable business could be worked up by any hardware store by simply following up such sales.

The way to follow up the sales, suggests a writer in *Hardware Age*, would be to get the names of the people who are going to occupy the houses for which the store furnishes some of the supplies, by getting in touch with these people through personal calls or over the phone, and by then putting up a good sales argument to these people. The argument put up by the store might be something like this:

"You have a mighty attractive home and you are very much pleased with it, and rightfully so. And one of the big reasons why your home is so very attractive and why you are so greatly pleased with it is that a considerable quantity of the supplies going into the construction of your home were furnished by this store. We sell only quality goods at our store, and we sell them at prices that please people. So we feel confident that if you will come to our store and consult with us about kitchen equipment, and other articles that will save labor and time and make your home more comfortable, that we will be able to please you with the quality and character of the goods and with the prices at which we sell them. Come to our store now and get all this equipment purchased before you move into your dandy new home."

Inventory Brings Out Dead Stock and Overstock.

What is your business temperature going to register this year?

The *inventory* germ is in the air. Somehow, now that we have relaxed after the Christmas tension, the inventory contagion is beginning to develop, says C. J. Christopher of the Minnesota Retail Hardware in a northwest publication.

At least most of us think of stock taking as a curse. Perhaps it is. And yet, even though it be granted that invoicing is an ingrown afflic-

tion, could we get along without it?

Doctors tell us that scourges, diseases, and the like, are nature's method of throwing off poisons and waste materials that have accumulated in the body. How about the waste accumulations in a hardware store? Isn't it possible that the curse of invoicing once a year, can be turned into a cure that will start any business off on a new year with vim, vigor, and vitality.

Many a healthy appearing business may be *harboring germs* that if given a chance will kill it. At no time can the symptoms of a business be so readily analyzed as when an invoice is taken. No keener X-ray has yet been invented for business troubles. It is the merchant's big opportunity to heed the warning. Look for the coated tongue or the weak heart—and apply the remedy.

The symptom of *overstock* and *dead stock* is going to be a common one. Even yet there are stores that have not discovered the secret of turn-over in a well proportioned and diversified stock. What are your dead lines? How much dead stock have you on hand? The best inventory instrument to locate this weakness is a *red ink entry* in your invoice records. As damaged and slow moving stock is inventoried, set it aside and mark it with the danger signal in red. If when you have finished, you find that your record looks like a case of the measles, it goes without saying—you're sick!

But the *simple cures* are always best. What the overstocked business needs is a good dose of sales emetic. The size of the dose (or doses) depends upon the degree of the ailment, of course. Get these unsalable and slow moving accumulations out on display and see to it that they are sold regardless of original cost. *Clean house!* Your business temperature cannot improve so long as these *overstock* and *dead stock* germs interfere with the ordinary workings of turn-over.

You will remember a few years ago, the army tests uncovered an almost unbelievable percentage of

heart failure in the ranks of the young men in this country. Correct *inventories* this year will reveal an alarming rate of *heart weakness* in the *retail hardware trade* of the Northwest. Profit is the very heart-beat of business. Mark-up or margin determines the strength of the pulse. Why not find out how much you register before jumping recklessly into 1923.

Here's the way to do it: Use the Hardware Association's Inventory Sheet or some other form that provides space for it. Then as you extend your cost or market prices, also make the regular retail extension showing what those goods will bring you. When you have totaled up your invoice, determine whether or not your stock is priced to *show a profit*, overhead considered. Surely, if your stock is not marked to show a profit after invoicing, you will not realize any revenue when the goods are sold. *Know your aggregate margins*. Too many stores are going broke because they do not know how to mark goods. If your heart is weak, there is only one way to remedy it. Study your lines and *know* where and when to take a stimulant in the form of an extra percentage.

Some business houses call in specialists every year to analyze and diagnose their business at great expense. Most retailers can not afford this service, but the symptoms are plain if you use the right methods and you can be your own doctor.

But above all, *heed the warning*. Why nurse them along all through next year to find that they have only grown more powerful than they are now.

Coming Conventions

Iowa Sheet Metal Contractors' Association, Sioux City, Iowa, March 14, 15, 1923. R. E. Pauley, Secretary, Mason City, Iowa.

Wisconsin Sheet Metal Contractors' Association, Republican House, Milwaukee, Wisconsin, March 14 and 15. Edward Hoffman, Secretary, 279 Lake Street, Milwaukee, Wisconsin.

Illinois Sheet Metal Contractors' Association, Decatur, Illinois, April 4 and 5, 1923. Fred Gross, Secretary, Quincy, Illinois.

National Warm Air Heating and Ventilating Association, Cleveland, Ohio, April 18 and 19, 1923. Allen W. Williams, Secretary, 52 West Gay Street, Columbus, Ohio.

American Hardware Manufacturers' Association, Spring Convention, Windsor Hotel, Jacksonville, Florida, April 24, 25, 26 and 27, 1923. Frederick D. Mitchell, Secretary - Treasurer, 1819 Broadway, New York City.

Southern Hardware Jobbers' Association, Windsor Hotel, Jacksonville, Florida, April 24, 25, 26 and 27, 1923. John Donnan, Secretary-Treasurer, Richmond, Virginia.

Old Guard Southern Hardware Salesmen's Association, Windsor Hotel, Jacksonville, Florida, April 25, 1923. R. P. Boyd, Secretary-Treasurer, R. F. D. 4, Knoxville, Tennessee.

Hardware Association of the Carolinas, Columbia, South Carolina, May 8, 9, 10 and 11, 1923. T. W. Dixon, Secretary-Treasurer, Charlotte, North Carolina.

Arkansas Retail Hardware Association, Marion Hotel, Little Rock, Arkansas, May, 1923. L. P. Biggs, Secretary, 815-816 Southern Trust Building, Little Rock, Arkansas.

Southeastern Retail Hardware and Implement Association, covering Tennessee, Alabama, Georgia and Florida. Auditorium Armory, Atlanta, Georgia, May 15, 16, 17 and 18, 1923. Walter Harlan, Secretary-Treasurer, 701 Grand Theater Building, Atlanta, Georgia.

National Retail Hardware Association, Richmond, Virginia, June, 1923. Herbert P. Sheets, Secretary-Treasurer, Argos, Indiana.

The National Association of Sheet Metal Contractors, St. Louis, Missouri, June 25 to 29, 1923. E. B. Langenberg, Secretary, 4057 Forest Park Boulevard, St. Louis, Missouri; E. L. Seabrook, 608 Chestnut Street, Philadelphia, Secretary.

Missouri Sheet Metal Contractors' Association, Statler Hotel, St. Louis, Missouri, June 25, 1923. Otto E. Scheske, Secretary, 3818 Maffitt Avenue, St. Louis, Missouri.

Retail Hardware Doings

Arkansas.

The firm of E. L. Chatfield and Son Hardware Company at Gravette has been sold to G. G. Kirkpatrick.

R. C. Phelps has leased the Cooper and Ross building at Oklona, where he intends to open a hardware store.

Hanna Hardware Company of Smackover has been destroyed by fire.

J. C. Brummitt, for many years with the Commerce Hardware Company of Stuttgart, has sold his interest to R. Cohn.

Illinois.

The owners of the Jordan Hardware Company at Ottawa, have sold their sheet metal department to Abe Jacobs. Mr. Jacobs has been in charge of this department for some time.

Bergstrom Brothers, hardware dealers at Eighteenth Avenue and Seventh Street, Rockford, are planning the construction of a new building on their site.

At Monroe Center, the hardware store of A. W. Drager has been damaged by fire.

A. H. Campbell has opened a hardware store at Hoopestown.

Indiana.

Walter Schlademan has purchased an interest in the L. E. Allen hardware store at Reynolds.

Iowa.

James Hartman has purchased the hardware business of Frank Mekota at Solon.

A deal has been completed whereby F. M. Darling becomes the owner of the R. H. Lowe hardware store at Manchester.

Luke Aswegan has sold his hardware stock in Fern to Tom Freeze.

Harry Juel and W. L. Anderson have purchased the hardware store of Linda-man and Brower at Arlington. The new name is Juel and Aplington.

At Donnellson, V. M. Schmitt has sold his interest in the hardware store to Rudolph Lowenberg.

Gasal Brothers Company at Cedar Falls have completed arrangements for the installation of a complete stock of hardware in connection with their full line of electrical appliances and fixtures.

Kansas.

A. J. Harvey and O. I. Lutz have purchased the Boyle Hardware store at Frankfort.

Minnesota.

H. A. Lehman has opened a hardware store at Henderson.

Bert Olson has purchased a hardware store at Carlton.

Michigan.

The Richenmore-Stall Hardware Company has opened for business at 114 Portage Street, Kalamazoo.

Missouri.

Archie Wilson, for a number of years a partner in the Cole Hardware Company at Bethany, has sold his interest in the business to Myron Moulton, Mel-verne Cole and Aubrey Cushman.

Ohio.

The Jones Hardware Company, 59 Public Square, Lima, has been sold by R. P. Jones to R. A. Stacey and W. E. Orton of North Adams, Massachusetts.

W. J. Gackel of Florida has opened a general hardware store in the Bokop Building at Perry and Davidson Streets, Defiance, with E. B. Reed as manager.

R. T. Mitchell has purchased the hardware store at 23 East Third Street, Dayton, from Charles W. Sander.

G. Goldsmith has sold his interest in the Bucyrus Hardware Company at Bucyrus to his partner, George F. Donnenwirth.

The Hancock Hardware Company of Jenera has been incorporated with a capital of \$25,000. Incorporators are: R. H. Fritsch, Carl E. Winkler, Harvey H. Redick, M. E. Wilch and John G. Boehm.

The Linden Hardware Company of Columbus has been incorporated with a capital of \$10,000. Incorporators are David A. Shade, Evan T. Reese, Frederick M. Moore, Thomas Reese, Henry Hansen.

South Dakota.

E. D. Wilson has sold his interest in the Lebanon Hardware Company at Lebanon to the other two members of the firm, W. H. Penrod and J. G. Blum.

Tennessee.

The Cottrell Johnson Hardware Company has started in business at 513 Asylum Avenue, Knoxville.

The Manny McCall Hardware Company of Jefferson City has sold an interest in the store to Dr. J. K. Walters.

Study and Interpretation of Advertisements.

You Can Make Your Advertisements More Gainful by Avoiding the Faults and Profiting by the Good Qualities of Others.

The Soo Hardware Company of Sault Ste. Marie, Michigan, knew how to take advantage of the Thanksgiving season, as witness the well prepared merchandising appeal they published in the *News* of that city, a small reproduction of which is shown on this page.

"Housewares for Thanksgiving Day Preparations" is the caption of the ad, aimed to attract the housewife. The feature of this special sale is a large, aluminum roaster priced at \$3, and it is a matter of commendable note that this "special" is featured by extra large, bold type. Other Thanksgiving specials are oval enameled roasters at \$2.65, N. P. casseroles, with three-pint earthen insert at \$2.25, game shears at \$3.50 and carving sets of the best grade of steel, \$3.50 up.

The ad is nicely set off by two illustrations.

The ad of the Baird Hardware Company of Gainesville, Florida, was published in the *Sun* of that city, a reproduction of which we show here.

Designed to sell roasters and carving sets, in connection with the

HOUSEWARES
FOR
Thanksgiving Day Preparations



Large Aluminum Roasters... \$3

We can furnish every utensil needed for the preparation of the Thanksgiving Feast.

Oval Enameled Roasters—with 15 pound capacity—priced at \$2.65 each.

N. P. Casseroles—with 3 pint earthen insert, priced at \$2.25 each.

Game Shears with forged crucible steel blades and with saw edges to prevent slipping. \$3.50 each.

Our Carving Sets are made of the best grade of steel. Priced at \$3.50 and up.

Soo Hardware Co.
"The Store That Stands the Test"

Turkey festival days, the ad has a timely seasonal appeal, but as we have pointed out before, its strength would have been enhanced by giving some prices in plain type.

Advertising one article at a time is good practice, and this the Bicknell Hardware and Furniture Company have done in the ad reproduced here from the *News* of Bicknell, Indiana.

A Good Way to Link Up Sales Force With Your Advertising.

A hardware dealer, anxious to shorten the link between his newspaper advertiser and his clerk sell-

Electric Light Bulbs

The next time you need a bulb try one of our

NILCO LAMPS

You will like the kind of light they give and the long service.

**Bicknell
Hardware & Furniture
Company**

The article in question was the electric light bulb. "The next time you need a bulb try one of our Nilco Lamps," reads the ad, "You will like the kind of light they give and the long service."

A short selling message and thus one easy for the reader to grasp, which is desirable. The use of a cut would have strengthened the appearance, as would the use of italic type to relieve the use of all straight faces.

In case of emergency it is sometimes advisable to reward the man who helped you emerge.

ing efforts, caused the following notice to be posted in the store:

"We offer a prize of \$5 for the best advertisement written around the goods sold in your section. In addition to this prize we will publish the advertisement that wins in the newspapers. Thus you reap a twofold advantage, winning the prize and having the benefit of increased business in your department."

The salesmen turned in many specimens, and pushed the sale of the advertised articles as they were eager to show that they could write advertisements which sold goods.

Review of Conditions in the Metal Markets.

General Situation in the Steel Industry. Report of Prices and Tendencies in Sheet Metals, Pig Iron, etc.

Non-Ferrous Metal Prices Continue to Advance with Steady Buying.

New York, March 6.—Steadily rising prices have ruled the markets of practically all the nonferrous metals in the past week. Copper has advanced 2 cents a pound in the month from February 8 to March 8. With this advance have come increases in copper and brass rolled and drawn products, ranging from 2 cents to 2½ cents; also in copper scrap, composition ingot, casting copper and all the range of products allied with the copper market.

Consumption of copper, as well as other metals, is today running from 50 to 100 per cent larger in volume than the average for the period between 1911 and 1914. Consumption in America is the greatest in history, even exceeding war times. The rate of consumption in Europe is not as heavy as before the war and should it be increased there in proportion to the rate here, a panicky state of affairs would exist. Although most of the producers are well sold up, consumers seem to be fairly well covered as to immediate needs, as buying for the past few days has been less active. However, the market is firm and strong at 17 cents a pound for electrolytic delivered. It is estimated that foreign and domestic consumption for the first two months of the current year aggregated slightly more than 400,000,000 pounds and that the surplus of refined copper was reduced by 26,000,000 pounds, or to 250,000,000 pounds.

Electrolytic copper has sold freely for delivery over the next four months at 17 cents, delivered; bids of 17.12½ cents, delivered, have been made for second half delivery. The excellent domestic demand for copper, due to the heavy consumption in fabricated products of all kinds for building, automotive, rail-

road and public utility purposes, has been mainly responsible for the market strength. Foreign demand has been fair despite European difficulties. Stocks of refined copper have been reduced to about a month's supply and are held by only one or two strong interests. Continued shortage of labor has kept back production, despite the higher prices. Casting copper has sold at 16.50 cents to 16.62½ cents, refinery. Lake copper advanced to 17.25 cents, delivered.

The Chicago base price for sheet copper is advanced to 24¾ cents.

Tin.

Tin quotations this week have ranged from 46.25 cents to 47.50 cents for Straits tin. New York quotations have been below London limits, that is, below import costs, due to willingness of importers and dealers to take profits on previous purchases. Ninety-nine per cent tin has been quoted 1¼ cents below Straits tin. Demand has been somewhat lighter the past few days in the open market.

Chicago warehouse prices are one cent higher—52 cents for pig and 54 cents for bar tin.

Lead

Lead prices have soared to new high levels since August, 1920, when the market was close to highest levels in history, excluding the war market of 1917.

Lead has sold for future shipment at 8.62½ cents to 8.75 cents, New York; 8.50 cents, East St. Louis. Some Spanish lead has sold recently for March shipment from Europe. Demand for lead has continued insistent and negotiations have been under way for shipment of lead from Great Britain here.

Zinc.

Zinc sold March 8 at 7.90 cents, East St. Louis, for March-April shipment. High grade zinc prices

were advanced by the principal producers to 9 cents.

Chicago warehouses quote zinc in slabs at 8.50 cents.

Solder.

Chicago warehouse prices on solder are as follows: Warranted 50-50, \$29.50; Commercial 45-55, \$28.50, and Plumbers', \$26.00.

Bolts and Nuts Prices Are Ten Percent Higher.

An increase of about 10 per cent on bolts and nuts went into effect the first of the month, but this has not frightened buyers and contracts for second quarter requirements now are being made at the advanced figures. The market appears firm at the new level and users apparently regard delivery as of more importance than prices and are seeking to place their requirements.

Large machine bolts went from 50 and 10 off to 50 off. Large carriage bolts advanced from 50 off to 45 off. Hot pressed and cold punched square or hexagon blank nuts are quoted at \$3.25 off list; tapped at \$3 off list. Small rivets are 60 and 5 off instead of 65 and 5; structural rivets, 3.25 cents, base Pittsburgh, instead of 3.00 cents, and boiler rivets 3.35 cents base Pittsburgh, instead rivets 3.35 cents base Pittsburgh.

One maker of rivets has since made another advance of \$5 per ton to 3.50 cents Pittsburgh for structural, and to 3.60 cents for boiler.

Wire and Nails.

Obligated for months to come, wire products makers are encountering numerous operation difficulties as well as in executing orders. Users and jobbers are endeavoring to increase the size of tonnages coming to them and makers in order to be fair to all of their customers are selecting orders with caution. Because cars are scarce and other transportation difficulties develop

from time to time, together with intermittent labor shortages, additions are made to the complications.

Some falling off in specifications on wire and nails has been noted in Chicago and is attributed to the fact that practically all buyers have considerable tonnage already on specification, while shipments are delayed. Demand for new contracts is keeping up fully and makers are forced to turn down considerable of this because they can not make deliveries. Railroads are coming into the market for barbed wire as the season for building and repairing fences approaches. Barbed wire is not as active as nails, although requirements of users are fully up to the average for this product. Prices are unchanged at 2.80 cents, Pittsburgh, for nails, and 2.65 cents, Pittsburgh, for wire.

Tin Plate.

That many tin plate consumers failed to contract for their requirements is evidenced by different offers of tonnage since the advance to \$4.95 per base box, 100 pounds, Pittsburgh, by the leading interest, and to a minimum of \$5 on the part of independent producers. One such requirement noted this past week involved 400,000 base boxes, mainly for food containers, for which the buyer offered to pay the leading interest \$4.95 per box for May and June delivery. This it could not accept and the buyer then offered to take tonnage in July and August, but the contract was not accepted because the company's books are not as yet opened for that period. Several consuming lines, including paint and varnish makers, have been slow in placing their specifications. Tin plate is quoted up to \$5.25 per base box, but actual sales have been made involving 10,000 boxes at a time at \$5.10, so that the market can be quoted at \$4.95 to \$5.10. Considerable demand for tin plate is developing abroad and price possibilities are much more favorable to the American maker than they were a few weeks ago.

Chicago warehouse prices have been advanced as follows: IC 14x

20, 112 sheet box, \$12.45; IX, \$14.05; IXX, \$17.57; IXXX, \$18.12, and IXXXX, \$18.65.

Sheets.

Several producers of sheets, including the leading interest, are unable to bring their operating schedules as high as they desire to discharge pressing obligations. At one plant sufficient steel is available and labor is short, while at another the labor supply is sufficiently large but the steel supply is low. While a week ago the shortage of box cars was pronounced, open-top cars now are scarce, making the delivery of sheet bars more restricted than ever.

Quotations on sheets by Chicago producers are nominal, as the leading independent has booked its entire production for second quarter and the leading producer has nothing to sell for several months' delivery. Users who find it necessary to obtain their requirements elsewhere obtain quotations considerably above the Chicago nominal level.

On blue annealed they are quoted 2.75 cents to 3.00 cents, Pittsburgh; on black sheets, 3.75 cents to 3.85 cents, Pittsburgh, and on galvanized, 4.75 cents to 5.00 cents, Pittsburgh. Users are seeking to place contracts for third quarter delivery, but mills will not quote.

Black sheets in Chicago are quoted by warehouses at 5 cents for 28 gauge.

Old Metals.

Wholesale quotations in the Chicago district, which should be considered as nominal, are as follows: Old steel axles, \$20.50 to \$21.00; old iron axles, \$26.00 to \$26.50; steel springs, \$23.50 to \$24.25; No. 1 wrought iron, \$18.00 to \$18.50; No. 1 cast, \$22.25 to \$22.75, all per net tons. Prices for non-ferrous metals are quoted as follows, per pounds: Light copper, 11½ cents; light brass, 7 cents; lead, 6 cents; zinc, 4½ cents; and cast aluminum, 17 cents. The demand for nearly all lines is heavy.

Pig Iron Market Is On Upward Move With Buying At Fairly Steady Rate.

Chicago Price For Northern Foundry Number 2 Is Held Firm At \$31.00 Furnace.

STRONG demand and rising prices in other producing centers has sent pig iron higher at Chicago. The market is now quoted \$30 to \$31, furnace. The higher figure applies on spot business. A northern iron producer has booked additional tonnage for the second quarter, total bookings being the best in three years. Shipments in February exceeded those in January, though there were three days less for delivery.

Price increases on pig iron of 50 cents to \$2 a ton have been inaugurated since a week ago by Pittsburgh foundries. Number 2 foundry (1.75 to 2.25 silicon) is up \$2; basic and malleable \$1 and bessemer 50 cents. Number 2 foundry, both for spot and second quarter delivery, now is firm at \$30, valley. One

or two requirements for March-June and several for April-June have been closed at that level. Included in the former group is one of 3,000 tons and in the latter three or four lots involving from 500 to 2,000 tons each.

Selling of pig iron continues in considerable volume in the South, despite the fact that three furnace interests are out of the market and one other is taking precautions not to oversell. It is estimated that the probable output for the second quarter of the year has been well covered by sales and that considerable iron into the third quarter has been disposed of. The Alabama Co. has sold the make of one furnace for two months of the third quarter already. The Sloss-Sheffield Steel & Iron Co. is the principal interest